					F UTAH FURAL RESG GAS AND M				AMENI	FC DED REPOR	RM 3			
		AF	PPLICATION FO	OR PERM	MIT TO DRILL					1. WELL NAME and N	UMBER NBU 102	22-314BS		
2. TYPE O	F WORK	DRILL NEW WELL	( REENTER	P&A WEL	L DEEPEN	WELL (	)		3. FIELD OR WILDCAT  NATURAL BUTTES					
4. TYPE O	F WELL	G	as Well Co	albed Me	ethane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES						1E	
6. NAME (	OF OPERATOR		KERR-MCGEE OIL				7. OPERATOR PHONE 720 929-6515							
8. ADDRE	SS OF OPERAT		P.O. Box 173779							9. OPERATOR E-MAII	L	anadarko	.com	
	AL LEASE NUM			11. M	IINERAL OWNERS	450	07175	3 eee/		12. SURFACE OWNER	SHIP		_	
		UTU-01191A <b>OWNER (if box 12</b>	= 'fee')	FEI	DERAL (III) IND	DIAN ()	STATE (	) FEE(	_	FEDERAL INI	DIAN ()	(if box 12		EE ()
		CE OWNER (if box								16. SURFACE OWNE		`		
		`		18. IN	NTEND TO COMM	INGI F P	RODUCTION	I FROM		19. SLANT				
	N ALLOTTEE O	R IRIBE NAME		MULT	TIPLE FORMATION	NS	ing Applicati		)	VERTICAL DIF	RECTION	AL 📵 H	HORIZONT	TAL 🔵
20. LOC/	ATION OF WELL			FOOTAG	GES	QTI	R-QTR	SECT	ION	TOWNSHIP	RA	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACE		149	6 FSL 22	294 FEL	N	WSE	3		10.0 S	22	2.0 E		S
Top of U	ppermost Prod	ucing Zone	190	01 FSL 49	94 FEL	N	NESE	3		10.0 S	22	2.0 E		S
At Total	Depth		190	1 FSL 49	94 FEL	N	NESE	3		10.0 S	22	2.0 E		S
21. COUN	ITY	UINTAH		22. D	DISTANCE TO NEA	REST LE 49		eet)		23. NUMBER OF ACRES IN DRILLING UNIT				
					DISTANCE TO NEA Dilied For Drilling		leted)	26. PROPOSED DEPTH  MD: 10433 TVD: 10022						
27. ELEV	ATION - GROUN	5218		28. B	BOND NUMBER	WYB00	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496					LE		
		3210			Hole, Casing			rmation						
String	Hole Size	Casing Size	Length	Weight			Max Mu			Cement		Sacks	Yield	Weight
Surf	11	8.625	0 - 2470	28.0	J-55 LT	&C	0.	.2		Type V Class G		180 270	1.15	15.8 15.8
Prod	7.875	4.5	0 - 10433	11.6	P-110 L	T&C	13	.0	Pre	mium Lite High Stre	ngth	300	3.38	12.0
										50/50 Poz		1550	1.31	14.3
					А	TTACHI	MENTS							
	VER	IFY THE FOLLO	WING ARE AT	ACHED	IN ACCORDAN	ICE WIT	H THE UTA	AH OIL AN	D GAS	CONSERVATION G	ENERA	L RULES		
<b>✓</b> w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR I	ENGINEER		СОМ	PLETE DRII	LING P	_AN				
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREEM	IENT (IF F	FEE SURFACE)		FORM	1 5. IF OPER	RATOR IS	S OTHER THAN THE LI	EASE OW	NER		
<b>I</b> ✓ DII	RECTIONAL SU	RVEY PLAN (IF DIR	ECTIONALLY OF	HORIZOI	NTALLY DRILLED	)	ТОРО	GRAPHICA	L MAP					
NAME G	na Becker			TITLE	Regulatory Analy	st II			PHON	E 720 929-6086				
SIGNATU	IRE			DATE	07/06/2012				EMAIL	. gina.becker@anadark	o.com			
	BER ASSIGNED 047529080	0000		APPR	ROVAL		Broogill							
				1					Pern	nit Manager				

NBU 1022-3J Pad Drilling Program

1 of 7

# Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3I4BS

Surface: 1496 FSL / 2294 FEL NWSE BHL: 1901 FSL / 494 FEL NESE

Section 3 T10S R22E

Unitah County, Utah Mineral Lease: UTU-01191A

#### **ONSHORE ORDER NO. 1**

#### **DRILLING PROGRAM**

# 1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,292'	
Birds Nest	1,530'	Water
Mahogany	2,021'	Water
Wasatch	4,364'	Gas
Mesaverde	6,705'	Gas
Sego	8,834'	Gas
Castlegate	8,982'	Gas
Blackhawk	9,422'	Gas
TVD	10,022'	
TD	10,433'	

### 3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

#### 4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

# 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

#### 6. <u>Evaluation Program:</u>

Please refer to the attached Drilling Program

NBU 1022-3J Pad Drilling Program 2 of 7

#### 7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 10022' TVD, approximately equals 6,615 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,455 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

#### 9. Variances:

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

NBU 1022-3J Pad Drilling Program
3 of 7

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### **Variance for BOPE Requirements**

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

#### Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

NBU 1022-3J Pad Drilling Program 4 of 7

#### Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

#### **Conclusion**

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

## 10. <u>Other Information:</u>

Please refer to the attached Drilling Program.

RECEIVED: July 06, 2012



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP February 15, 2012 DATE NBU 1022-3I4BS WELL NAME TD 10,022' TVD 10,433' MD **FIELD** Natural Buttes **COUNTY Uintah** STATE Utah FINISHED ELEVATION 5218.4 SURFACE LOCATION **NWSE** 1496 FSL 2294 FEL Sec 3 T 10S R 22E Latitude: 39.974809 Longitude: -109.424855 NAD 83 BTM HOLE LOCATION NESE 1901 FSL 494 FEL Sec 3 T 10S R 22E Latitude: 39.975928 Longitude: -109.418439 NAD 83 OBJECTIVE ZONE(S) BLACKHAWK (Part of the Mesaverde Group) ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept. **GEOLOGICAL MECHANICAL FORMATION** HOLE **CASING** MUD LOGS **TOPS DEPTH** SIZE SIZE WEIGHT 40' 14" 12-1/4 8-5/8", 28#, IJ-55, LTC Air mist 200' All water flows encountered while drilling will be reported to the appropriate agencies. 11.00' 8-5/8", 28#, IJ-55, LTC Air mist Green River @ 1,292 Top of Birds Nest @ 1,530 Mahogany @ 2,021 Preset f/ GL @ 2,470' Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. Wasatch @ 4,364 Mud logging program TBD 4-1/2" 11.6# Cased hole logging program from TD - surf csg 7-7/8" Water / Fresh HCP-110 Water Mud Ultra DQX/LTC csg 8.3-13.0 ppg Sego @ 6,705' TVD Castlegate @ 8,834' TVD 8,982' TVD Blackhawk @ Max anticipated Mud required 10,022' TVD 13.0 ppg TD@ 10,433' MD

RECEIVED: July 06, 2012



## KERR-McGEE OIL & GAS ONSHORE LP

#### **DRILLING PROGRAM**

CASING PROGRAM	<u>1</u>	DESIGN FACTORS									
_				LTC	DQX						
	SIZE	INT	ERVA		WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,470	28.00	IJ-55	LTC	2.18	1.63	5.75	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.28		3.79
	4-1/2"	5,000	to	10,433'	11.60	HCP-110	LTC	1.19	1.28	5.52	

**Surface Casing:** 

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water	to surface, op	otion 2 will b	e utilized	
Option 2 LEAD	1,970'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,863'	Premium Lite II +0.25 pps	300	35%	12.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,570'	50/50 Poz/G + 10% salt + 2% gel	1,550	35%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

1 centralizer on the first 3 joints and one every third joint thereafter.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT:

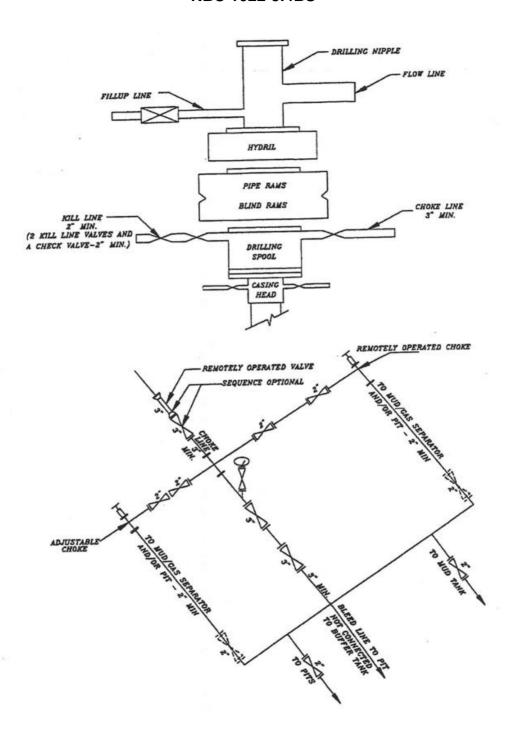
DATE:

Kenny Gathings / Lovel Young

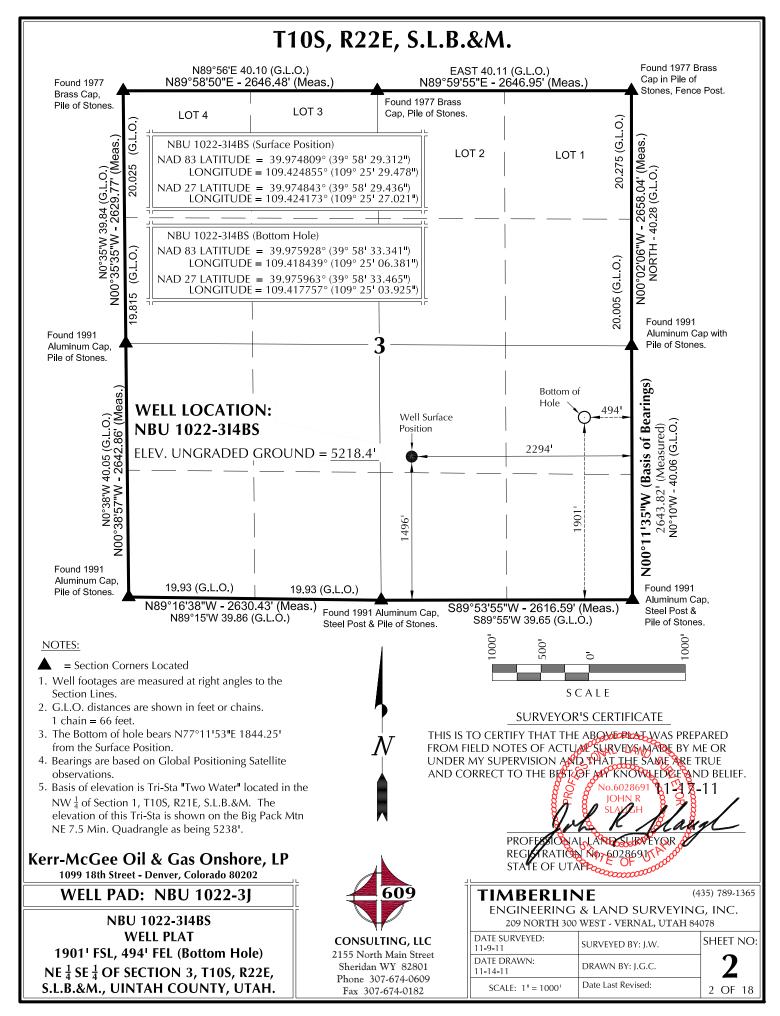
NBU 1022-3J Pad- Directional Drilling Blackhawk Program (3 wells) Approved by Drilling- 021512.xlsx

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

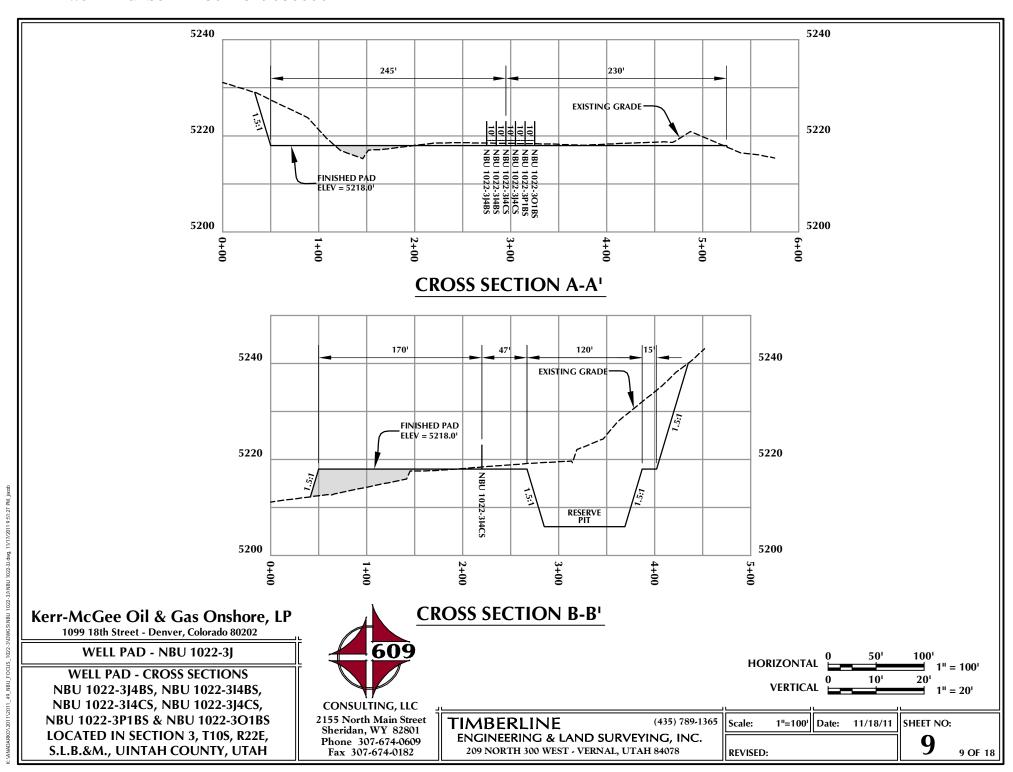
EXHIBIT A NBU 1022-314BS

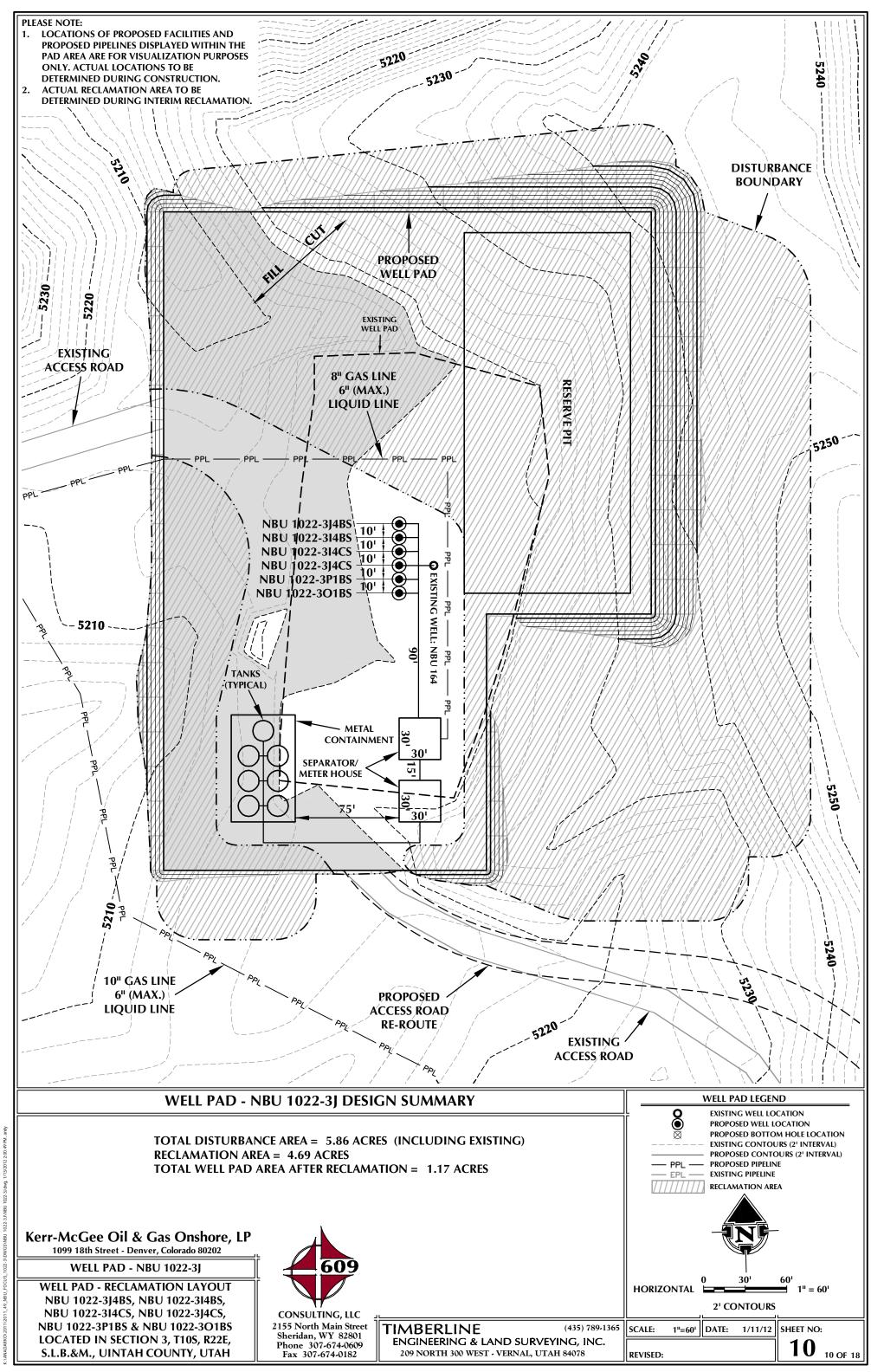


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



		BOTTOM HOLE											
WELL NAME	NAI		IDE LATIT	NAD27	CITUDE	FOOTAGE	1 / T'	NAE		ITUDE	NAI		FOOTAGEG
NBU	<b>LATITUDE</b> 39°58'29.411"	109°25'29			'27.018"	1505' FSL		TUDE 31.734"	109°25'	23.403"	<b>LATITUDE</b> 39°58'31.858"	<b>LONGITUDE</b> 109°25'20.947	
1022-3J4BS	39.974836°	109.42485	4° 39.97487	<sup>7</sup> 1° 109.42	4172°	2293' FEL	39.975	482°	109.423	3167°	39.975516°	109.422485°	1820' FEL
NBU 1022-314BS	39°58'29.312" 39.974809°	109°25'29 109.42485			'27.021" 41.73°	1496' FSL 2294' FEL	39°58′ 39.975	33.341" 3928°	109°25' 109.418	06.381" 2430°	39°58'33.465" 39.975963°	109°25'03.925 109.417757°	1901' FSL 494' FEL
NBU	39°58'29.213"				'27.025"	1486' FSL	+	30.081"	109°25'		39°58'30.205"		
1022-314CS NBU	39.974781° 39°58'29.115"	109.42485				2294' FEL	39.975		109.418		39.975057°	109.417754°	494' FEL
NBU 1022-3J4CS	39°58°29.115° 39.974754°	109°25'29 109.42485			'27.029" 41 <i>7</i> 5°	1476' FSL 2294' FEL	39.974	28.601"  612°	109°25' 109.423		39°58'28.726" 39.974646°	109°25'21.127 109.422535°	1423' FSL 1835' FEL
NBU	39°58'29.016"	109°25'29	.489" 39°58'29	.140" 109°25	'27.032"	1466' FSL	1	26.811"	109°25'	06.356"	39°58'26.935"	109°25'03.901	1240' FSL
1022-3P1BS NBU	39.974727° 39°58'28.917"	109.42485 109°25'29			4176° '27.036"	2295' FEL 1456' FSL	39.974 39°58'	1114° 25.183"	109.418 109°25'		39.974148° 39°58'25.307"	109.417750° 109°25'20.909	494' FEL 1077' FSL
1022-3O1BS	39.974699°	109.42485	9° 39.97473	34° 109.42		2295' FEL	39.973		109.423		39.973696°	109.422475°	1819' FEL
NBU 164	39°58'29.108" 39.974752°	109°25'29 109.42476			'26.708" 4086°	1475' FSL 2269' FEL							
	33.37 17 32	109.42470		TIVE COORD			⊒ e Positio	n to Bott	om Hole				
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS		NAME	NOR		EAST	WELL NAM	ME NORTH	EAST
NBU	235.31	472.7'	NBU	408.71	1798.	NBU	01166	88.	6'	1799.8'	NBU	-51.7	459.61
1022-3J4BS WELL NAME	NORTH	EAST	1022-3I4BS WELL NAME	NORTH	EAS		314CS			1	1022-3J4CS	5	
NBU	-222.4	1801.5'	NBU	-377.7	477.3								
1022-3P1BS	-222.4	1001.5	1022-3O1BS	-3//./	4//								
				Ш				4		11	$\omega$ $\omega$	18.5	
	Az. to Az. to Az. to Az. to	Exist. W.H Exist. W.H Exist. W.H Exist. W.H	=141.76417° =130.24306° .=113.36500° l.=91.56556° .=69.78583° =52.84500° 3	32.0' <b>NBU</b> 26.9' <b>NBU</b> 25.0' <b>NBU</b> 26.9' <b>NBU</b>	1022 1022 1022 1022	-314BS ( -314CS ( -3J4CS ( 3P1BS ( 3O1BS (	10/10/10/10/	• EXISTING WELL: NBU 164		S82° (T	AZ=8 (To Bott N87°10'49" AZ= (To Bottom F) 57'48"E - 10 O Bottom F) Z=97.0366	7.18028° 7.18028° om Hole) E - 1802.00 =96.42222° ottom Hole; 40"E - 462.4 815.16' fole) 7°	
	Az. to Az. to Az. to Az. to	Exist. W.H. Exist. W.H Exist. W.H Exist. W.H Exist. W.H Exist. W.H. Exist. W.H.  BASIS THE S S.L.B.& GLOB OBSEF	=141.76417° .=130.24306° .=113.36500° 1.=91.56556° 1.=69.78583° .=52.84500° 3  OF BEARING E	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, IS TAKEN FRI	J 1022 J 1022 J 1022 1022- 1022- ST LINE R22E, OM ITE	-3J4BS -3I4BS -3I4CS -3J4CS 3P1BS 3O1BS	10/10'10'10'	EXISTING 		S82° (T	AZ=77. (To Botto N77°11'53" AZ=8 (To Botto N87°10'49" AZ= (To Bottom L	7.18028° 7.18028° om Hole) E - 1802.00 =96.42222° ottom Hole; 40"E - 462.4 815.16' fole) 7°	
1099 1	Az. to Az. to Az. to Az. to I	Exist. W.H. Exist. W.H Exist. W.H Exist. W.H Exist. W.H Exist. W.H Exist. W.H.	=141.76417° .=130.24306° .=113.36500° I.=91.56556° I.=69.78583° =52.84500° 3  OF BEARING E \( \frac{1}{4} \) OF SECTIC RM. WHICH I AL POSITION RVATIONS TO  Onshore, rado 80202	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, IS TAKEN FRI	J 1022 J 1022 J 1022 1022- 1022- ST LINE R22E, OM ITE	-3J4BS -3I4BS -3I4CS -3J4CS -3P1BS 3O1BS	°34'30"W	• EXISTING		S82° (T A)	AZ=77. (To Botto) AZ=8 (To Botto) AZ=97.0366	7.18028° 7.18028° 6.42222° 815.16' 815.16' 7°	8'
1099 1 WE	Az. to Az. to Az. to Az. to I	Exist. W.H. Exist. W.H	=141.76417° .=130.24306° .=113.36500° I.=91.56556° I.=69.78583° =52.84500° 3  OF BEARING E	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, IS TAKEN FRI	J 1022 J 1022 J 1022 1022- 1022- ST LINE R22E, OM ITE	-3J4BS -3I4BS -3I4CS -3J4CS 3P1BS 3O1BS	°34'30"W	• EXISTING	IMB ENGIN	S82° (TA	AZ=77. (To Botto, N77°11'53" AZ=8 (To Botto, N87°10'49" AZ=, (To Botto, N87	7.18028°   7.18028°   7.18028°   6.42222°   6.4222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.4222°   6.4222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.4222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.42222°   6.4222°   6.	35) 789-1365 G, INC.
WELL	Az. to Az. to Az. to Az. to I  Gee Oil & 8th Street - De LL PAD -	Exist. W.H. Exist. W.H	=141.76417° .=130.24306° .=113.36500° I.=91.56556° I.=69.78583° =52.84500° 3  OF BEARING E \( \frac{1}{4} \) OF SECTIC RM. WHICH I AL POSITION RVATIONS TO  Onshore, rado 80202  022-3J  ICE PLAT	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 25.0' NBU 2.0' NBU 2.0' NBU  S IS THE EAS ON 3, T10S, IS TAKEN FRING SATELL D BEAR NOOS	J 1022 J 1022 J 1022 1022-1022-1 1022-1 ST LINE R22E, OM ITE P11'35"\	-3J4BS -3I4BS -3I4CS -3J4CS -3J4CS 3O1BS	S01°34'30"W	• EXISTING	IMB ENGIN 209 N	S82° (TA)	AZ=77. (To Botto, N77°11'53" AZ=8 (To Botto, N87°10'49" AZ=, (To Botto, N87	7.18028°   7.18028°   7.18028°   6.42222°   6.42222°   6.4222°   6.42.4	35) 789-1365 G, INC.
WELL WELLS - N	Az. to Az. to Az. to Az. to Az. to I  Gee Oil & 8th Street - De LL PAD - PAD INTE NBU 1022-3	Exist. W.H. Exist. W.H	=141.76417° .=130.24306° .=113.36500° I.=91.56556° I.=69.78583° =52.84500° 3  OF BEARING E	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, S TAKEN FRI ING SATELL D BEAR NOO'  LP	J 1022 J 1022 J 1022 J 1022-1022-1022-1022-1022-1022-1022-1022	-3J4BS -3I4BS -3I4CS -3J4CS -3J4CS 3O1BS OF ZZY -2V	S01°34'30"W	• EXISTING	IMB ENGIN 209 N E SURVEY	S82° (TA)	AZ=77. (To Botto, N77°11'53" AZ=8 (To Botto, N87°10'49" AZ=, (To Botto, N87	7.18028° 7.18028° 7.18028° 6.40222° 6.40°E - 462.4  815.16' 815.16' 815.16'  SURVEYING RNAL, UTAH 84	35) 789-1365 G, INC.
WELL WELLS - NBU	Az. to Az. to Az. to Az. to I  Gee Oil & 8th Street - De LL PAD -	Exist. W.H. Exist. W.H	=141.76417° .=130.24306° .=113.36500° I.=91.56556° I.=69.78583° =52.84500° 3  OF BEARING E	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, S TAKEN FRI ING SATELL D BEAR NOO'  LP	U 1022 J 1022 J 1022 J 1022-1022-1022-1022-1022-1022-1022-1022	-3J4BS -3I4BS -3I4CS -3J4CS -3J4CS -3P1BS 3O1BS OF ZY	S01°34'30"W	E DATI	IMB ENGIN 209 N E SURVEY-11 E DRAWN	S82° (TA)	AZ=77. (To Botto, N77°11'53" AZ=8 (To Botto, N7°10'49" AZ=, (To Botto, N87°10'49" AZ=, (To Bottom H, N87°10'48"E - 160 Bottom H, N87°10'48"E -	7.18028°   7.18028°   7.18028°   6.42222°   6.42222°   6.42222°   6.42.44°	35) 789-1365 G, INC.
WELL WELLS - NBU NBU 1 LOCA	Az. to Az. to Az. to Az. to Az. to I  Gee Oil & 8th Street - De LL PAD - PAD INTE NBU 1022-3J 1022-3J4CS,	Exist. W.H. Exist. W.H	=141.76417° .=130.24306° .=113.36500° .=91.56556° .=69.78583° =52.84500° 3  OF BEARING E	S C A L E  39.0' NBU 32.0' NBU 26.9' NBU 26.9' NBU 26.9' NBU 2.0' NBU S IS THE EAS ON 3, T10S, S TAKEN FRI ING SATELL D BEAR NOO'  LP	U 1022 J 1022 J 1022 J 1022-1022-1022-1022-1022-1022-1022-1022	-3J4BS -3I4BS -3I4CS -3J4CS -3J4CS 3O1BS OF ZZY -2V	S01°34'30"W	E DATI 11-12	IMB ENGIN 209 N E SURVEY-11 E DRAWN	S82° (TA)	AZ=77. (To Botto) AZ=8 (To Botto) N7°11'53" AZ=8 (To Botto) N87°10'49" AZ= (To Botto) N87°10'49" AZ= S83°34' SOBOTTON NOON NOON NOON NOON NOON NOON NO	7.18028° 7.18028° 7.18028° 6.40222° 6.40°E - 462.4  815.16' 815.16' 815.16'  SURVEYING RNAL, UTAH 84  BY: J.W.  1.1.G.C.	8' 





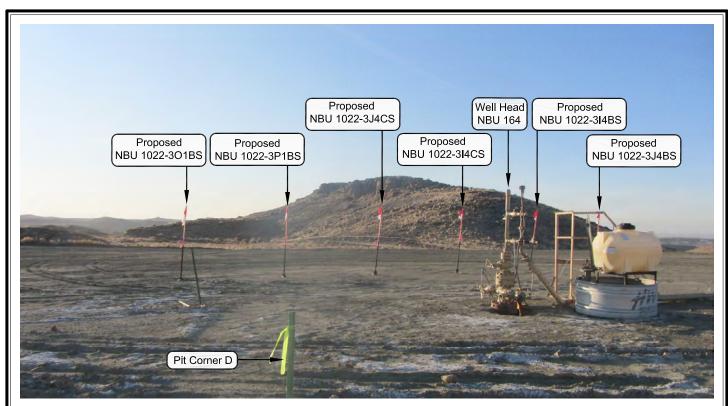


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

**CAMERA ANGLE: NORTHWESTERLY** 



PHOTO VIEW: FROM EXISTING ACCESS ROAD

**CAMERA ANGLE: NORTHEASTERLY** 

### Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

### **WELL PAD - NBU 1022-3**J

**LOCATION PHOTOS** NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-314CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.



#### CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

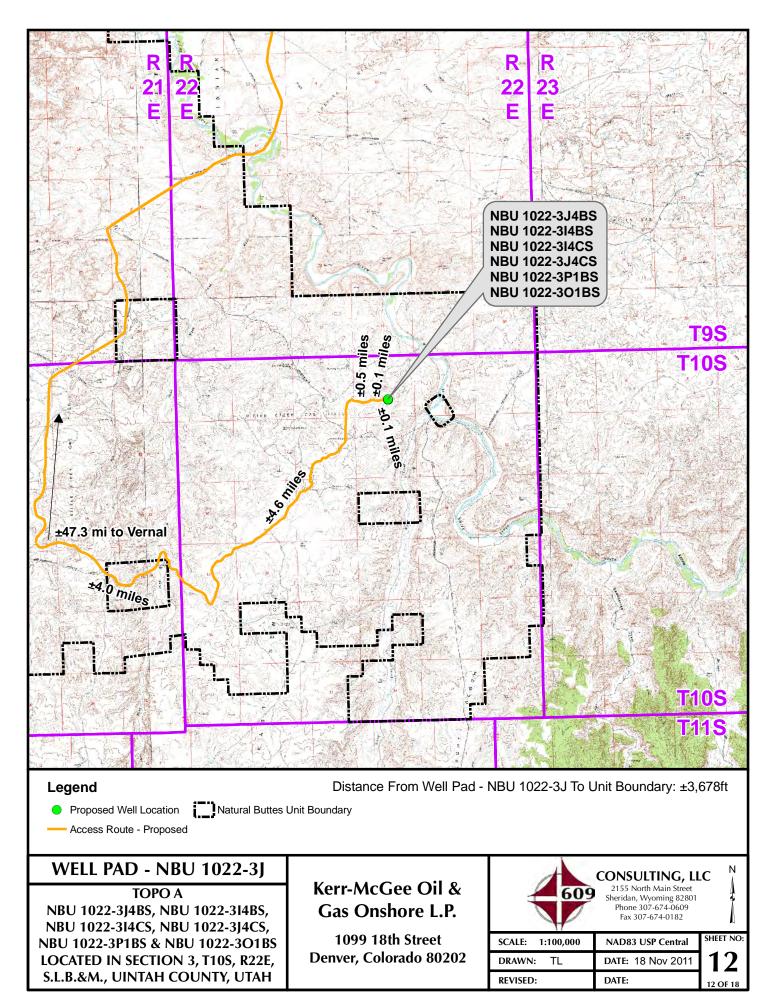
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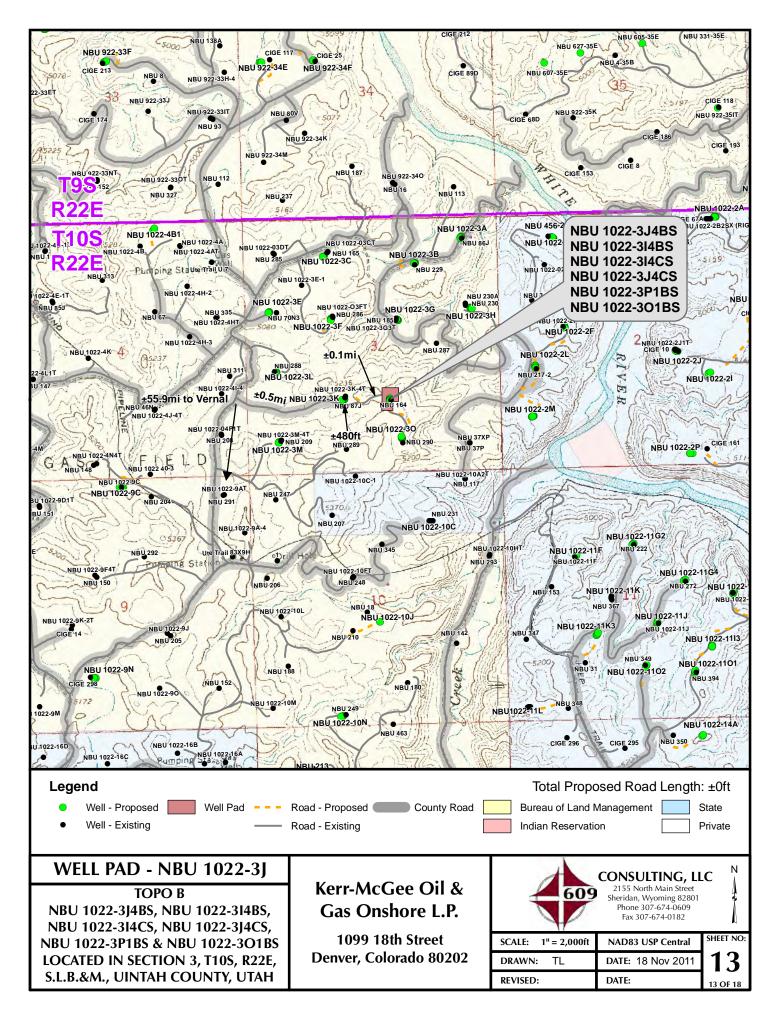
(435) 789-1365

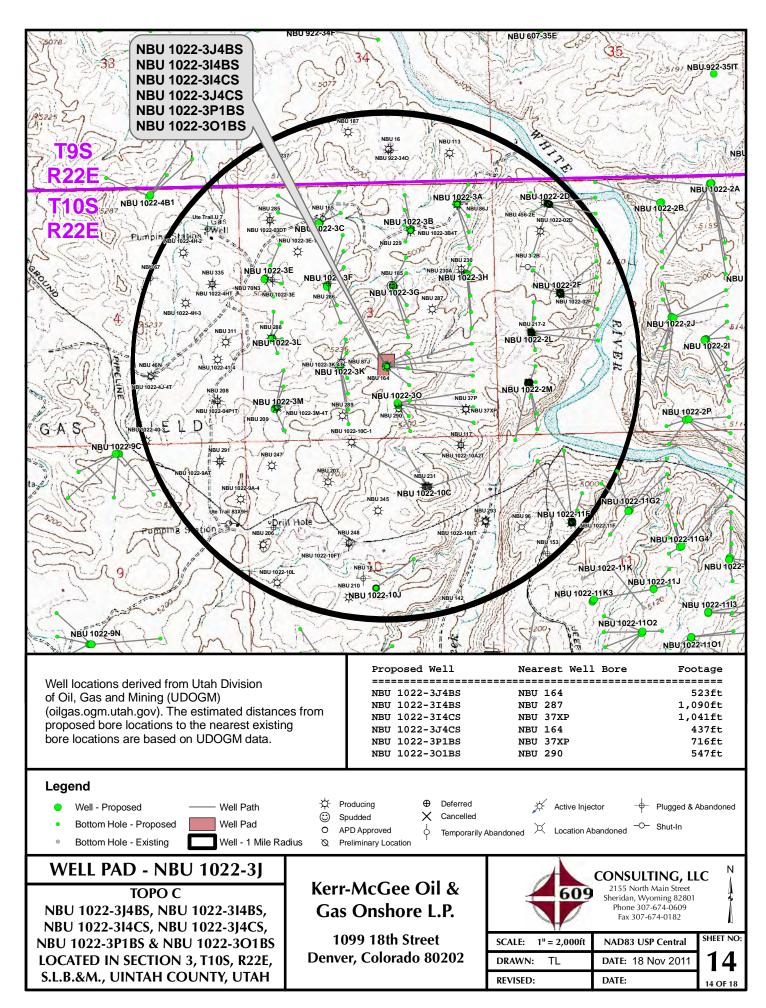
11 OF 18

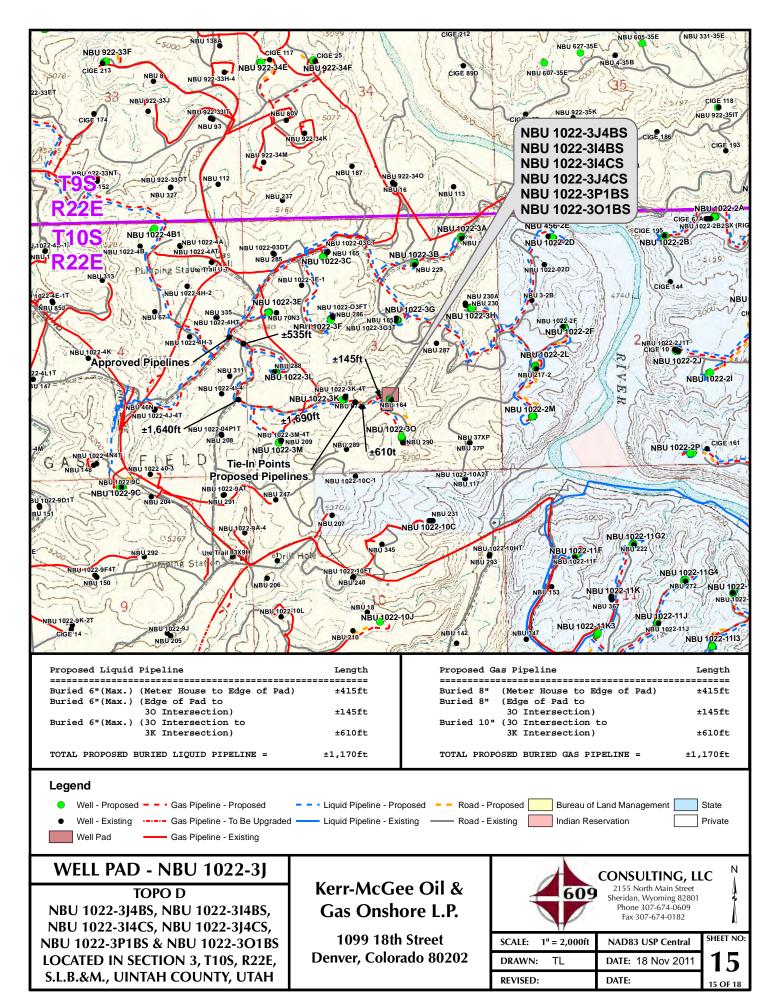
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

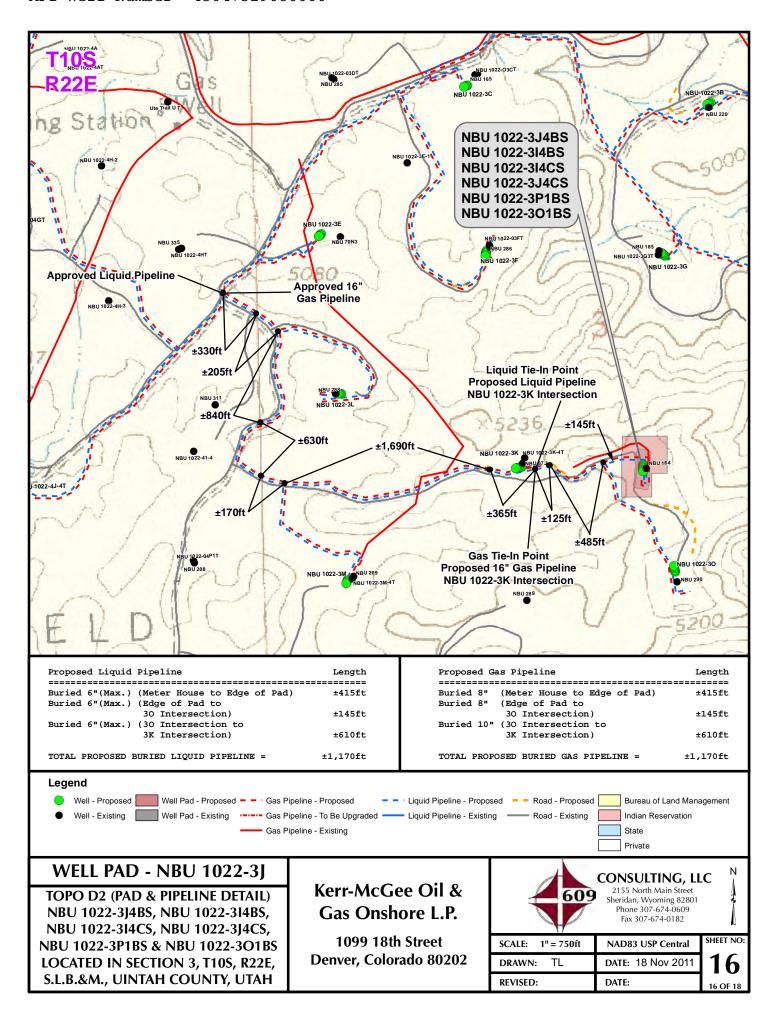
DATE PHOTOS TAKEN: 11-9-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 11-14-11	DRAWN BY: J.G.C.	11
Date Last Revised:		11 OF 18

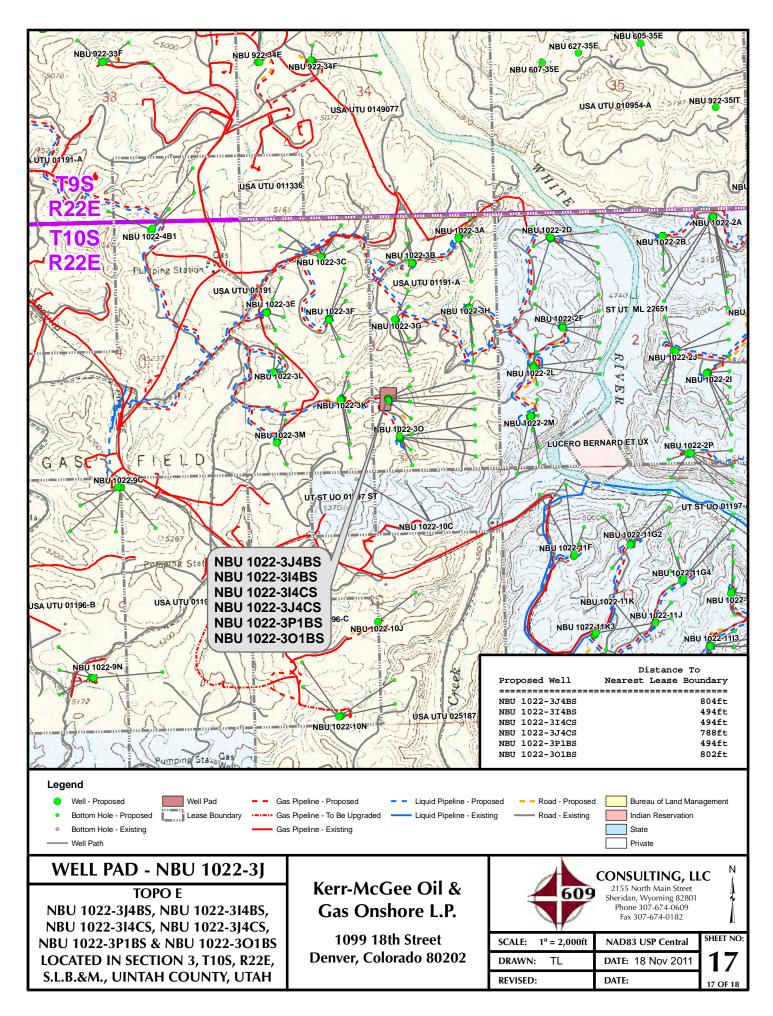












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 1022-3J WELLS - NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS, NBU 1022-3O1BS Section 3, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 4.0 miles to a Class D County road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 4.6 miles to a second Class D County Road to the east. Exit right and proceed in an easterly direction along the second Class D County Road approximately 0.5 miles to the proposed NBU 1022-3K pad. Proceed in an easterly direction through the proposed NBU 1022-3K pad approximately 480 feet to an existing service road to the east. Proceed along the service road in an easterly direction approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 56.5 miles in a southerly direction.

**SHEET 18 OF 18** 

API Well Number: 43047 5200 0000000 - UTM (feet), NAD27, Zone 12N

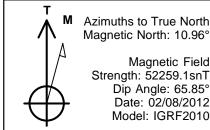
Scientific Drilling

Rocky Mountain Operations

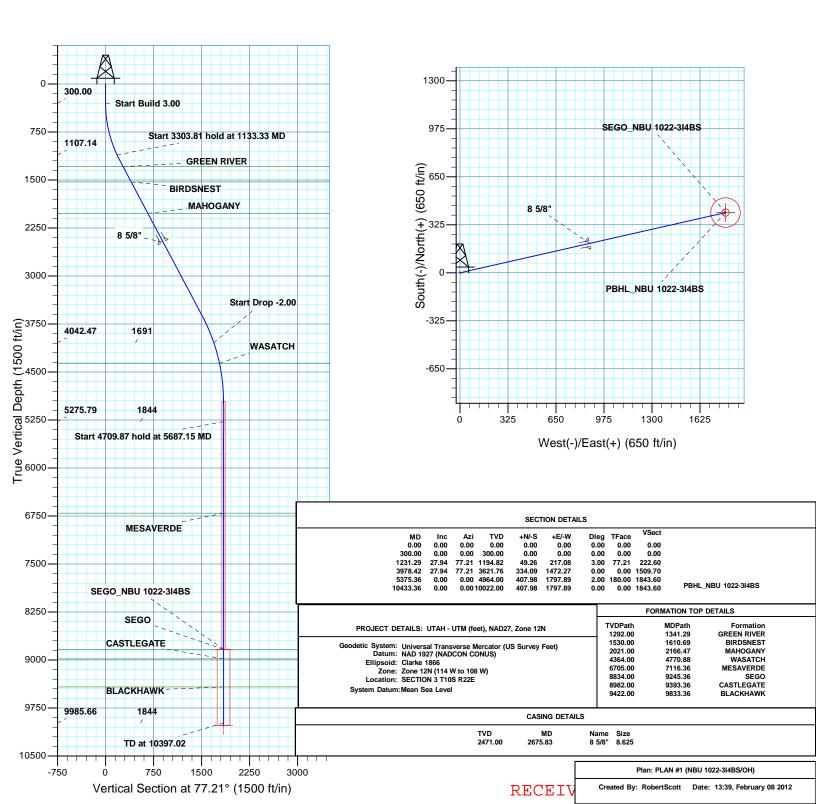
Site: NBU 1022-3J PAD Well: NBU 1022-3I4BS

Wellbore: OH
Design: PLAN #1





WELL DETAILS: NBU 1022-314BS													
GL 5218 & KB 4 @ 5222.00ft (ASSUMED)													
	+N/-S 0.00		E/-W D.00	Northing 14520784.93	Easting 2081911.85	Latittude 39.974843	Longitude -109.424173						
				DE	SIGN TARGET I	DETAILS							
Name SEGO	SEGO 8834.00 407.98 1797.89 145212					Easting 2083702.24	Latitude 39.975963	Longitude -109.417757					
- plan hits target center PBHL 10022.00 407.98 1797.89 14521224.62 2083702.24 39.975963 -109.417757 Circle (Radius: 100.00) - plan hits target center													





# **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-3J PAD NBU 1022-3I4BS

ОН

Plan: PLAN #1

# **Standard Planning Report**

08 February, 2012



RECEIVED: July 06, 2012



# SDI Planning Report



EDM5000-RobertS-Local Database:

Company: US ROCKIES REGION PLANNING Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-3J PAD Well: NBU 1022-3I4BS

Wellbore: ОН PLAN #1 Design:

Map Zone:

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 1022-3I4BS

GL 5218 & KB 4 @ 5222.00ft (ASSUMED) GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W)

Mean Sea Level

NBU 1022-3J PAD, SECTION 3 T10S R22E Site

Northing: 14,520,765.26 usft Site Position: Latitude: 39.974789 From: Lat/Long Easting: 2,081,911.63 usft Longitude: -109.424175 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.01 9 13.200 in

System Datum:

Well NBU 1022-3I4BS, 1496 FSL 2294 FEL

**Well Position** +N/-S 14,520,784.94 usft Latitude: 39.974843 19.67 ft Northing: +E/-W 0.56 ft Easting: 2,081,911.84 usft Longitude: -109.424173

0.00 ft Wellhead Elevation: **Ground Level:** 5,218.00 ft **Position Uncertainty** 

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 02/08/12 10.96 65.85 52.259

PLAN #1 Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 77.21

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,231.29	27.94	77.21	1,194.82	49.26	217.08	3.00	3.00	0.00	77.21	
3,978.42	27.94	77.21	3,621.76	334.09	1,472.27	0.00	0.00	0.00	0.00	
5,375.36	0.00	0.00	4,964.00	407.98	1,797.89	2.00	-2.00	0.00	180.00	
10,433.36	0.00	0.00	10,022.00	407.98	1,797.89	0.00	0.00	0.00	0.00 PB	HL_NBU 1022-314



# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3J PAD

 Well:
 NBU 1022-3I4BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well NBU 1022-3I4BS

GL 5218 & KB 4 @ 5222.00ft (ASSUMED) GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

True

11.									
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build	3.00								
400.00	3.00	77.21	399.95	0.58	2.55	2.62	3.00	3.00	0.00
500.00	6.00	77.21	499.63	2.32	10.20	10.46	3.00	3.00	0.00
600.00	9.00	77.21	598.77	5.20	22.93	23.51	3.00	3.00	0.00
700.00	12.00	77.21	697.08	9.24	40.70	41.74	3.00	3.00	0.00
800.00	15.00	77.21	794.31	14.40	63.46	65.08	3.00	3.00	0.00
900.00	18.00	77.21	890.18	20.69	91.16	93.48	3.00	3.00	0.00
1,000.00	21.00	77.21	984.43	28.07	123.71	126.85	3.00	3.00	0.00
1,100.00	24.00	77.21	1,076.81	36.54	161.02 174.50	165.12 178.94	3.00	3.00	0.00
1,133.33	25.00	77.21	1,107.14	39.60	174.50	178.94	3.00	3.00	0.00
	81 hold at 1133.33		1 107 00	40.07	202.00	200.40	2.00	2.00	0.00
1,200.00	27.00	77.21	1,167.06	46.07	203.00	208.16	3.00	3.00	0.00
1,231.29	27.94	77.21	1,194.82	49.26	217.08	222.60	3.00	3.00	0.00
1,300.00	27.94	77.21	1,255.52	56.38	248.47	254.79	0.00	0.00	0.00
1,341.29	27.94	77.21	1,292.00	60.67	267.34	274.13	0.00	0.00	0.00
GREEN RIV	/ER								
1,400.00	27.94	77.21	1,343.87	66.75	294.16	301.64	0.00	0.00	0.00
1,500.00	27.94	77.21	1,432.21	77.12	339.85	348.49	0.00	0.00	0.00
1,600.00	27.94	77.21	1,520.56	87.49	385.54	395.35	0.00	0.00	0.00
1,610.69	27.94	77.21	1,530.00	88.60	390.43	400.36	0.00	0.00	0.00
		77.21	1,550.00	00.00	330.43	+00.50	0.00	0.00	0.00
1,700.00	27.94	77.21	1,608.90	97.86	431.24	442.20	0.00	0.00	0.00
1,800.00	27.94 27.94	77.21	1,697.25	108.23	476.93	489.05	0.00	0.00	0.00
1,900.00	27.94	77.21	1,785.59	118.59	522.62	535.91	0.00	0.00	0.00
2,000.00	27.94 27.94	77.21	1,873.94	128.96	568.31	582.76	0.00	0.00	0.00
2,100.00	27.94	77.21	1,962.28	139.33	614.00	629.61	0.00	0.00	0.00
2,166.47	27.94	77.21	2,021.00	146.22	644.37	660.75	0.00	0.00	0.00
MAHOGAN									
2,200.00	27.94	77.21	2,050.63	149.70	659.69	676.46	0.00	0.00	0.00
2,300.00	27.94	77.21	2,138.97	160.07	705.38	723.32	0.00	0.00	0.00
2,400.00	27.94	77.21	2,227.31	170.44	751.07	770.17	0.00	0.00	0.00
2,500.00	27.94	77.21	2,315.66	180.80	796.77	817.02	0.00	0.00	0.00
2,600.00	27.94	77.21	2,404.00	191.17	842.46	863.88	0.00	0.00	0.00
2,675.83	27.94	77.21	2,471.00	199.04	877.11	899.41	0.00	0.00	0.00
8 5/8"									
2,700.00	27.94	77.21	2,492.35	201.54	888.15	910.73	0.00	0.00	0.00
2,800.00	27.94	77.21	2,580.69	211.91	933.84	957.58	0.00	0.00	0.00
2,900.00	27.94	77.21	2,669.04	222.28	979.53	1,004.43	0.00	0.00	0.00
3,000.00	27.94 27.94	77.21	2,757.38	232.65	1,025.22	1,004.43	0.00	0.00	0.00
3,100.00	27.94	77.21	2,845.73	243.02	1,070.91	1,031.29	0.00	0.00	0.00
3,200.00	27.94	77.21	2,934.07	253.38	1,116.60	1,144.99	0.00	0.00	0.00
3,300.00	27.94	77.21	3,022.42	263.75	1,162.30	1,191.85	0.00	0.00	0.00
3,400.00	27.94	77.21	3,110.76	274.12	1,207.99	1,238.70	0.00	0.00	0.00
3,500.00	27.94	77.21	3,199.11	284.49	1,253.68	1,285.55	0.00	0.00	0.00
3,600.00	27.94	77.21	3,287.45	294.86	1,299.37	1,332.40	0.00	0.00	0.00
3,700.00	27.94	77.21	3,375.80	305.23	1,345.06	1,379.26	0.00	0.00	0.00
3,800.00	27.94	77.21	3,464.14	315.59	1,390.75	1,426.11	0.00	0.00	0.00
3,900.00	27.94	77.21	3,552.49	325.96	1,436.44	1,472.96	0.00	0.00	0.00
3,978.42	27.94	77.21	3,621.76	334.09	1,472.27	1,509.70	0.00	0.00	0.00



# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3J PAD

 Well:
 NBU 1022-3I4BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 1022-3I4BS

GL 5218 & KB 4 @ 5222.00ft (ASSUMED) GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

True

Design:	PLAN #1												
Planned Survey													
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)				
4,000.00	27.51	77.21	3,640.87	336.32	1,482.06	1,519.74	2.00	-2.00	0.00				
4,100.00	25.51	77.21	3,730.35	346.19	1,525.59	1,564.37	2.00	-2.00	0.00				
4,200.00	23.51	77.21	3,821.34	355.37	1,566.04	1,605.85	2.00	-2.00	0.00				
4,300.00	21.51	77.21	3,913.72	363.84	1,603.37	1,644.13	2.00	-2.00	0.00				
4,400.00	19.51	77.21	4,007.38	371.59	1,637.53	1,679.16	2.00	-2.00					
4,437.15	18.76	77.21	4,042.47	374.29	1,649.40	1,691.34	2.00	-2.00	0.00				
<b>Start Drop -2</b> . 4,500.00 4,600.00	17.51	77.21	4,102.20	378.62	1,668.48	1,710.90	2.00	-2.00	0.00				
	15.51	77.21	4,198.07	384.91	1,696.19	1,739.31	2.00	-2.00	0.00				
4,700.00	13.51	77.21	4,294.88	390.45	1,720.62	1,764.36	2.00	-2.00	0.00				
4,770.88	12.09	77.21	4,364.00	393.92	1,735.93	1,780.06	2.00	-2.00	0.00				
<b>WASATCH</b> 4,800.00 4,900.00	11.51 9.51	77.21 77.21	4,392.50 4,490.82	395.24 399.28	1,741.74 1,759.52	1,786.02 1,804.25	2.00 2.00	-2.00 -2.00	0.00 0.00				
5,000.00 5,100.00	7.51 5.51	77.21 77.21	4,589.71 4,689.07	402.55 405.06	1,773.94 1,784.99	1,819.04 1,830.38	2.00	-2.00 -2.00	0.00				
5,200.00	3.51	77.21	4,788.75	406.80	1,792.66	1,838.23	2.00	-2.00	0.00				
5,300.00	1.51	77.21	4,888.65	407.76	1,796.92	1,842.61	2.00	-2.00	0.00				
5,375.36	0.00	0.00	4,964.00	407.98	1,797.89	1,843.60	2.00	-2.00	0.00				
5,400.00	0.00	0.00	4,988.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
5,500.00	0.00	0.00	5,088.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
5,600.00	0.00	0.00	5,188.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
5,687.15	0.00	0.00	5,275.79	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
	hold at 5687.15		-,		.,	1,2 12122							
5,700.00	0.00	0.00	5,288.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
5,800.00	0.00	0.00	5,388.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
5,900.00	0.00	0.00	5,488.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,000.00	0.00	0.00	5,588.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,100.00	0.00	0.00	5,688.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,200.00	0.00	0.00	5,788.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,300.00	0.00	0.00	5,888.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,400.00	0.00	0.00	5,988.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,500.00	0.00	0.00	6,088.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,600.00	0.00	0.00	6,188.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,700.00	0.00	0.00	6,288.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,800.00	0.00	0.00	6,388.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
6,900.00	0.00	0.00	6,488.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,000.00	0.00	0.00	6,588.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,100.00	0.00	0.00	6,688.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,116.36	0.00	0.00	6,705.00	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
<b>MESAVERDE</b> 7,200.00	0.00	0.00	6,788.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,300.00	0.00	0.00	6,888.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,400.00	0.00	0.00	6,988.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,500.00	0.00	0.00	7,088.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,600.00	0.00	0.00	7,188.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,700.00	0.00	0.00	7,288.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,800.00	0.00	0.00	7,388.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
7,900.00	0.00	0.00	7,488.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
8,000.00	0.00	0.00	7,588.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
8,100.00	0.00	0.00	7,688.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
8,200.00	0.00	0.00	7,788.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				
8,300.00	0.00	0.00	7,888.64	407.98	1,797.89	1,843.60	0.00	0.00	0.00				



# **SDI**Planning Report



Database: Company: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

Project: UTAH - UTM (feet).
Site: NBU 1022-3J PAD

 Well:
 NBU 1022-3I4BS

 Wellbore:
 OH

 Design:
 PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3I4BS

GL 5218 & KB 4 @ 5222.00ft (ASSUMED) GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

True

esign:	PLAN #1								
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,400.00 8,500.00 8,600.00 8,700.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	7,988.64 8,088.64 8,188.64 8,288.64	407.98 407.98 407.98 407.98	1,797.89 1,797.89 1,797.89 1,797.89	1,843.60 1,843.60 1,843.60 1,843.60	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
8,800.00 8,900.00 9,000.00 9,100.00 9,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	8,388.64 8,488.64 8,588.64 8,688.64 8,788.64	407.98 407.98 407.98 407.98 407.98	1,797.89 1,797.89 1,797.89 1,797.89 1,797.89	1,843.60 1,843.60 1,843.60 1,843.60 1,843.60	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
9,245.36	0.00 O NBU 1022-314	0.00	8,834.00	407.98	1,797.89	1,843.60	0.00	0.00	0.00
9,300.00 9,393.36	0.00 0.00	0.00 0.00	8,888.64 8,982.00	407.98 407.98	1,797.89 1,797.89	1,843.60 1,843.60	0.00 0.00	0.00 0.00	0.00 0.00
9,400.00 9,500.00	0.00 0.00	0.00 0.00	8,988.64 9,088.64	407.98 407.98	1,797.89 1,797.89	1,843.60 1,843.60	0.00 0.00	0.00 0.00	0.00 0.00
9,600.00 9,700.00 9,800.00 9,833.36	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,188.64 9,288.64 9,388.64 9,422.00	407.98 407.98 407.98 407.98	1,797.89 1,797.89 1,797.89 1,797.89	1,843.60 1,843.60 1,843.60 1,843.60	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BLACKHAW	ΙK								
9,900.00 10,000.00 10,100.00 10,200.00 10,300.00 10,397.02	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	9,488.64 9,588.64 9,688.64 9,788.64 9,888.64 9,985.66	407.98 407.98 407.98 407.98 407.98 407.98	1,797.89 1,797.89 1,797.89 1,797.89 1,797.89	1,843.60 1,843.60 1,843.60 1,843.60 1,843.60 1,843.60	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
TD at 10397.	.02								
10,400.00 10,433.36	0.00 0.00	0.00 0.00	9,988.64 10,022.00	407.98 407.98	1,797.89 1,797.89	1,843.60 1,843.60	0.00 0.00	0.00 0.00	0.00 0.00
PBHL_NBU	1022-3I4BS								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 1022-3I4B\$ - plan hits target cente - Circle (radius 25.00)		0.00	8,834.00	407.98	1,797.89	14,521,224.63	2,083,702.24	39.975963	-109.417757
PBHL_NBU 1022-3I4BS - plan hits target cente - Circle (radius 100.00		0.00	10,022.00	407.98	1,797.89	14,521,224.63	2,083,702.24	39.975963	-109.417757

Casing Points					
	Measured	Vertical Depth		Casing Diameter	Hole Diameter
	Depth				
	(ft)	(ft)	Name	(in)	(in)
	2,675.83	2,471.00 8 5/8"		8.625	11.000



# **SDI**Planning Report



Database: Company: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

Project: Site: Well:

NBU 1022-3J PAD NBU 1022-3I4BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3I4BS

GL 5218 & KB 4 @ 5222.00ft (ASSUMED) GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

True

ormations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,341.29	1,292.00	GREEN RIVER				
	1,610.69	1,530.00	BIRDSNEST				
	2,166.47	2,021.00	MAHOGANY				
	4,770.88	4,364.00	WASATCH				
	7,116.36	6,705.00	MESAVERDE				
	9,245.36	8,834.00	SEGO				
	9,393.36	8,982.00	CASTLEGATE				
	9,833.36	9,422.00	BLACKHAWK				

Plan Annotations				
Measured Vertical		Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 3.00
1,133.33	1,107.14	39.60	174.50	Start 3303.81 hold at 1133.33 MD
4,437.15	4,101.41	348.59	1,536.14	Start Drop -2.00
5,687.15	5,312.13	407.98	1,797.89	Start 4709.87 hold at 5687.15 MD
10,397.02	10,022.00	407.98	1,797.89	TD at 10397.02

# Kerr-McGee Oil & Gas Onshore. L.P.

#### **NBU 1022-3J PAD**

<u>API #</u>		NBU 1022-314BS			
<del></del>	Surface: BHL:	1496 FSL / 2294 FEL 1901 FSL / 494 FEL	NWSE NESE	Lot Lot	
<u>API #</u>	API # NBU 1022-314CS				
	Surface: BHL:	1486 FSL / 2294 FEL 1571 FSL / 494 FEL	NWSE NESE	Lot Lot	
<u> API #</u>		NBU 1022-3J4BS			
	Surface: BHL:	1505 FSL / 2293 FEL 1740 FSL / 1820 FEL	NWSE NWSE	Lot Lot	
API #4304750438 NBU 1022-3J4CS					
	Surface: BHL:	1476 FSL / 2294 FEL 1423 FSL / 1835 FEL	NWSE NWSE	Lot Lot	
<u> API #</u>		NBU 1022-301BS			
	Surface: BHL:	1456 FSL / 2295 FEL 1077 FSL / 1819 FEL	NWSE SWSE	Lot Lot	
<u>API #</u>		NBU 1022-3P1BS			
	Surface: BHL:	1466 FSL / 2295 FEL 1240 FSL / 494 FEL	NWSE SESE	Lot Lot	

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on December 6, 2011. Present were:

- · David Gordon, Tyler Cox BLM;
- · Jacob Dunham 609 Consulting;
- John Slaugh, Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- · Gina Becker, Charles Chase, Doyle Holmes, Casey McGee, Grizz Oleen, Sheila Wopsock Kerr-McGee

#### A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All

Surface Use Plan of Operations 2 of 13

disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

#### B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

There are no new proposed access roads associated with this pad. Please refer to Topo B.

Surface Use Plan of Operations 3 of 13

#### C. Location of Existing Wells:

A) Refer to Topo Map C.

#### D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 164, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on February 10, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

#### **GAS GATHERING**

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 5,400$ ' and the individual segments are broken up as follows:

#### The following segments are "onlease", no ROW needed.

- ±415' (0.08 miles) Section 3 T10S R22E (NW/4 SE/4) On-lease UTU-01191A, BLM surface, New 8" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2- Pad and Pipeline Detail.
- ±145' (0.03 miles) Section 3 T10S R22E (NW/4 SE/4) On-lease UTU-01191A, BLM surface, New 8" buried gas gathering pipeline from the edge of the pad to tie-in to the proposed 10" buried gas gathering pipeline at the NBU 1022-3O intersection. Please refer to Topo D2 Pad and Pipeline Detail and Exhibit A, Line 5.
- ±610' (0.12 miles) Section 3 T10S R22E (NE/4 SW/4) On-lease UTU-01191, BLM surface, New 10" buried gas gathering pipeline from the NBU 1022-3O intersection to tie-in to the proposed 16" buried gas gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3O Pad. Please refer to Exhibit A, Line 4.
- $\pm 2$ , 055' (0.39 miles) Section 3 T10S R22E (N/2 SW/4) On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3O and NBU 1022-3K pads. Please refer to Exhibit A, Line 3.
- ±1,640' (0.31 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 16' buried gas gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit A, Line 2.
  - ±535' (0.1 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved 16" gas pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit A, Line 1.

Surface Use Plan of Operations 4 of 13

#### **LIQUID GATHERING**

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 5,400$ ' and the individual segments are broken up as follows:

#### The following segments are "onlease", no ROW needed.

- ±415' (0.08 miles) Section 3 T10S R22E (NW/4 SE/4) On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2- Pad and Pipeline Detail.
- $\pm 145$ ' (0.03 miles) Section 3 T10S R22E (NW/4 SE/4) On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to tie-in to the proposed 6" buried liquid gathering pipeline at the NBU 1022-3O intersection. Please refer to Topo D2 Pad and Pipeline Detail and Exhibit B, Line 5.
- ±610' (0.12 miles) Section 3 T10S R22E (NE/4 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3O intersection to tie-in to the proposed 6" buried liquid gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3O Pad. Please refer to Exhibit B, Line 4.
- ±2,055' (0.39 miles) Section 3 T10S R22E (N/2 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3O and NBU 1022-3K pads. Please refer to Exhibit B, Line 3.
- ±1,640' (0.31 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit B, Line 2.
- ±535' (0.1 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 6' buried liquid gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved liquid pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit B, Line 1.

#### **Pipeline Gathering Construction**

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in

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diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

### The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

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If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom or pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

### E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

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#### G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a

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manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

### **Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E

NBU 1022-314BS/ 1022-314CS/ 1022-3J4BS/ 1022-3J4CS/ 1022-301BS/ 1022-3P1BS

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NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

### H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

### I. Well Site Lavout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

### **Plans for Surface Reclamation:**

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

### **Interim Reclamation**

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

#### **Final Reclamation**

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

### **Measures Common to Interim and Final Reclamation**

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	Pure Live Seed lbs/acre
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass	1
(Arriba)	
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

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Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 - 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

### **Weed Control**

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

### Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

### K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

### L. Other Information:

### **Onsite Specifics:**

- None
- Facilities: Will be painted Shadow Grey
- Top Soil: Need to save 4" topsoil and will be move and put around the corner
- Need to obtain a storm water permit
- BMP on the pit use (waddles, hay bails or silt fence)

### **Cultural and Paleontological Resources**

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

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### **Resource Reports:**

A Class I literature review was completed on February 1, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-404.

A paleontological reconnaissance survey was completed on February 3, 2012 by Intermountain Paleo Consultants. For additional details please refer to report IPC 11-202PRE.

Biological field survey was completed on June 15, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-689.

### **Proposed Action Annual Emissions Tables:**

Table 1: Proposed Action Annual Emissions (tons/year) <sup>1</sup>								
Pollutant	Development	Production	Total					
NOx	3.8	0.12	3.92					
CO	2.2	0.11	2.31					
VOC	0.1	4.9	5					
$SO_2$	0.005	0.0043	0.0093					
$PM_{10}$	1.7	0.11	1.81					
PM <sub>2.5</sub>	0.4	0.025	0.425					
Benzene	2.2E-03	0.044	0.046					
Toluene	1.6E-03	0.103	0.105					
Ethylbenzene	3.4E-04	0.005	0.005					
Xylene	1.1E-03	0.076	0.077					
n-Hexane	1.7E-04	0.145	0.145					
Formaldehyde	1.3E-02	8.64E-05	1.31E-02					

<sup>&</sup>lt;sup>1</sup> Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison								
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory <sup>a</sup> (ton/yr)	to WRAP Phase					
NOx	23.52	16,547	0.14%					
VOC	30	127,495	0.02%					

<sup>&</sup>lt;sup>a</sup> http://www.wrapair.org/forums/ogwg/PhaseIII\_Inventory.html

Uintah Basin Data

API Well Number: 43047529080000

NBU 1022-3I4BS/ 1022-3I4CS/ 1022-3J4BS/ 1022-3J4CS/ 1022-3O1BS/ 1022-3P1BS Surface Use Plan of Operations 13 of 13

### M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T Becker

February 15, 2012

Date



Kerr-McGee Oil & Gas Onshore LP 1099 18TH STREET STE. 1800 DENVER, CO 80202 720-929-6708 • FAX 720-929-7708 E-MAIL: JOE.JOHNSON@ANADARKO.COM

February 14, 2012

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 1022-3I4BS

T10S-R22E

Section 3: NWSE/NESE Surface: 1496' FSL, 2294' FEL Bottom Hole: 1901' FSL, 494' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-3I4BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

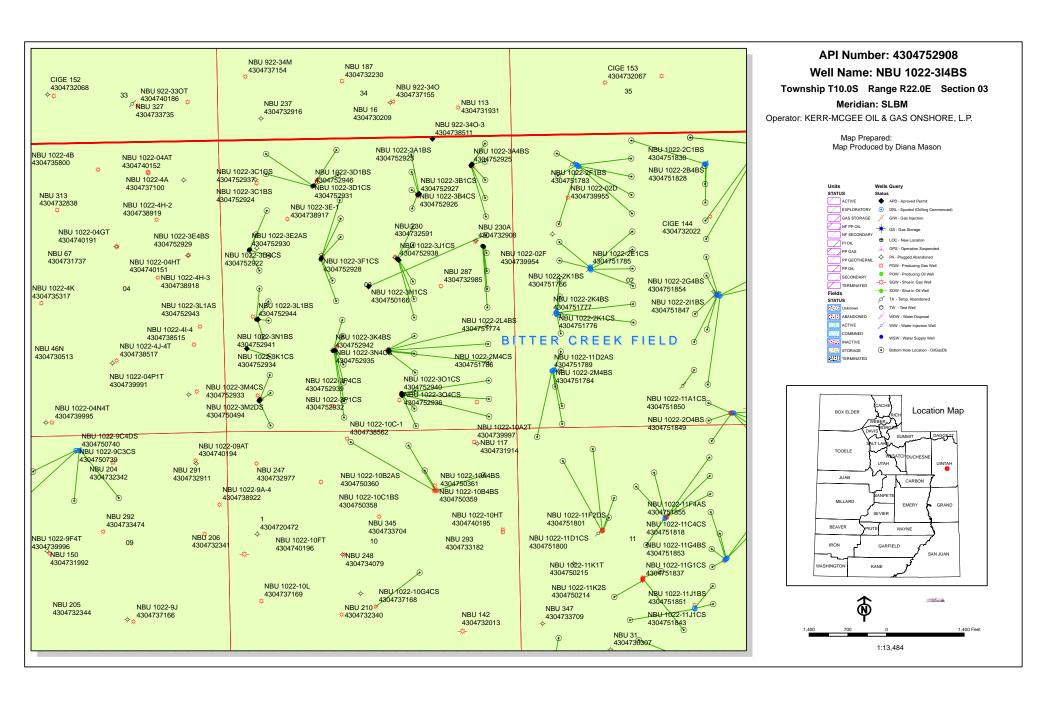
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman

RECEIVED: July 06, 2012



API Well Number: 43047529080000

# **United States Department of the Interior**

### BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

July 16, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

### WELL PAD - NBU 1022-3H

43-047-52902 NBU 1022-3H4CS Sec 03 T10S R22E 1949 FNL 0549 FEL BHL Sec 03 T10S R22E 2396 FNL 0494 FEL Sec 03 T10S R22E 1939 FNL 0567 FEL 43-047-52906 NBU 1022-3I1CS BHL Sec 03 T10S R22E 2232 FSL 0494 FEL 43-047-52910 NBU 1022-3H4BS Sec 03 T10S R22E 1953 FNL 0540 FEL BHL Sec 03 T10S R22E 2065 FNL 0494 FEL 43-047-52914 NBU 1022-3I1BS Sec 03 T10S R22E 1944 FNL 0558 FEL BHL Sec 03 T10S R22E 2562 FSL 0494 FEL WELL PAD - NBU 1022-3G 43-047-52903 NBU 1022-3J1BS Sec 03 T10S R22E 2166 FNL 2090 FEL BHL Sec 03 T10S R22E 2402 FSL 1820 FEL 43-047-52907 NBU 1022-3G1CS Sec 03 T10S R22E 2153 FNL 2105 FEL BHL Sec 03 T10S R22E 1903 FNL 1821 FEL 43-047-52917 NBU 1022-3G1BS Sec 03 T10S R22E 2146 FNL 2112 FEL BHL Sec 03 T10S R22E 1572 FNL 1821 FEL 43-047-52938 NBU 1022-3J1CS Sec 03 T10S R22E 2159 FNL 2097 FEL BHL Sec 03 T10S R22E 2071 FSL 1820 FEL

RECEIVED: July 18, 2012

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

### WELL PAD - NBU 1022-3F

43-047-52904 NBU 1022-3K1BS Sec 03 T10S R22E 2143 FNL 1787 FWL BHL Sec 03 T10S R22E 2399 FSL 2046 FWL

BHL Sec US TIUS RZZE Z399 FSL ZU40 FWI

 $43-047-52913 \ \text{NBU} \ 1022-3\text{F4CS} \qquad \text{Sec 03 T10S R22E 2133 FNL 1790 FWL}$ 

BHL Sec 03 T10S R22E 2531 FNL 1987 FWL

43-047-52919 NBU 1022-3F1BS Sec 03 T10S R22E 2114 FNL 1795 FWL

BHL Sec 03 T10S R22E 1411 FNL 2159 FWL

43-047-52921 NBU 1022-3C4CS Sec 03 T10S R22E 2104 FNL 1798 FWL

BHL Sec 03 T10S R22E 1078 FNL 2153 FWL

43-047-52928 NBU 1022-3F1CS Sec 03 T10S R22E 2123 FNL 1793 FWL

BHL Sec 03 T10S R22E 1742 FNL 2152 FWL

#### WELL PAD - NBU 1022-3J

43-047-52905 NBU 1022-3J4BS Sec 03 T10S R22E 1505 FSL 2293 FEL

BHL Sec 03 T10S R22E 1740 FSL 1820 FEL

43-047-52908 NBU 1022-3I4BS Sec 03 T10S R22E 1496 FSL 2294 FEL

BHL Sec 03 T10S R22E 1901 FSL 0494 FEL

43-047-52912 NBU 1022-301BS Sec 03 T10S R22E 1456 FSL 2295 FEL

BHL Sec 03 T10S R22E 1077 FSL 1819 FEL

43-047-52915 NBU 1022-3P1BS Sec 03 T10S R22E 1466 FSL 2295 FEL

BHL Sec 03 T10S R22E 1240 FSL 0494 FEL

43-047-52916 NBU 1022-3I4CS Sec 03 T10S R22E 1486 FSL 2294 FEL

BHL Sec 03 T10S R22E 1571 FSL 0494 FEL

### WELL PAD - NBU 1022-3A

43-047-52909 NBU 1022-3H1BS Sec 03 T10S R22E 0488 FNL 0748 FEL

BHL Sec 03 T10S R22E 1405 FNL 0495 FEL

43-047-52923 NBU 1022-3A1BS Sec 03 T10S R22E 0453 FNL 0728 FEL

BHL Sec 03 T10S R22E 0083 FNL 0488 FEL

43-047-52925 NBU 1022-3A4BS Sec 03 T10S R22E 0470 FNL 0738 FEL

BHL Sec 03 T10S R22E 0744 FNL 0495 FEL

### WELL PAD - NBU 1022-3K

43-047-52918 NBU 1022-3N1CS Sec 03 T10S R22E 1500 FSL 2008 FWL

BHL Sec 03 T10S R22E 0913 FSL 2150 FWL

43-047-52934 NBU 1022-3K1CS Sec 03 T10S R22E 1493 FSL 1969 FWL

BHL Sec 03 T10S R22E 2047 FSL 2147 FWL

43-047-52935 NBU 1022-3N4CS Sec 03 T10S R22E 1496 FSL 1988 FWL

BHL Sec 03 T10S R22E 0287 FSL 2143 FWL

43-047-52941 NBU 1022-3N1BS Sec 03 T10S R22E 1501 FSL 2018 FWL

BHL Sec 03 T10S R22E 1244 FSL 2150 FWL

43-047-52942 NBU 1022-3K4BS Sec 03 T10S R22E 1494 FSL 1978 FWL

BHL Sec 03 T10S R22E 1760 FSL 2154 FWL

Page 2

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

### WELL PAD - NBU 1022-3E

43-047-52920 NBU 1022-3E4CS Sec 03 T10S R22E 1960 FNL 0490 FWL

BHL Sec 03 T10S R22E 2324 FNL 0667 FWL

43-047-52922 NBU 1022-3D4CS Sec 03 T10S R22E 1939 FNL 0511 FWL

BHL Sec 03 T10S R22E 1245 FNL 0826 FWL

43-047-52929 NBU 1022-3E4BS Sec 03 T10S R22E 1953 FNL 0497 FWL

BHL Sec 03 T10S R22E 2057 FNL 0841 FWL

43-047-52930 NBU 1022-3E2AS Sec 03 T10S R22E 1946 FNL 0504 FWL

BHL Sec 03 T10S R22E 1676 FNL 0625 FWL

#### WELL PAD - NBU 1022-3C

43-047-52924 NBU 1022-3C1BS Sec 03 T10S R22E 0810 FNL 1682 FWL

BHL Sec 03 T10S R22E 0166 FNL 2110 FWL

43-047-52931 NBU 1022-3D1CS Sec 03 T10S R22E 0817 FNL 1664 FWL

BHL Sec 03 T10S R22E 0581 FNL 0826 FWL

43-047-52937 NBU 1022-3C1CS Sec 03 T10S R22E 0806 FNL 1692 FWL

BHL Sec 03 T10S R22E 0619 FNL 2130 FWL

43-047-52946 NBU 1022-3D1BS Sec 03 T10S R22E 0813 FNL 1673 FWL

BHL Sec 03 T10S R22E 0224 FNL 0833 FWL

### WELL PAD - NBU 1022-3B

43-047-52926 NBU 1022-3B4CS Sec 03 T10S R22E 0998 FNL 1724 FEL

BHL Sec 03 T10S R22E 1241 FNL 1822 FEL

43-047-52927 NBU 1022-3B1CS Sec 03 T10S R22E 0988 FNL 1706 FEL

BHL Sec 03 T10S R22E 0578 FNL 1822 FEL

### WELL PAD - NBU 1022-30

43-047-52932 NBU 1022-3P1CS Sec 03 T10S R22E 0699 FSL 2072 FEL

BHL Sec 03 T10S R22E 0909 FSL 0494 FEL

43-047-52936 NBU 1022-304CS Sec 03 T10S R22E 0660 FSL 2065 FEL

BHL Sec 03 T10S R22E 0106 FSL 1825 FEL

43-047-52939 NBU 1022-3P4CS Sec 03 T10S R22E 0680 FSL 2069 FEL

BHL Sec 03 T10S R22E 0256 FSL 0500 FEL

43-047-52940 NBU 1022-301CS Sec 03 T10S R22E 0709 FSL 2073 FEL

BHL Sec 03 T10S R22E 0746 FSL 1819 FEL

### WELL PAD - NBU 1022-3M

43-047-52933 NBU 1022-3M4CS Sec 03 T10S R22E 0607 FSL 0615 FWL

BHL Sec 03 T10S R22E 0163 FSL 0812 FWL

#### WELL PAD - NBU 1022-3L

43-047-52943 NBU 1022-3L1AS Sec 03 T10S R22E 2086 FSL 0607 FWL

BHL Sec 03 T10S R22E 2411 FSL 0825 FWL

43-047-52944 NBU 1022-3L1BS Sec 03 T10S R22E 2086 FSL 0597 FWL

BHL Sec 03 T10S R22E 2644 FSL 0665 FWL

Page 3

API Well Number: 43047529080000

Page 4

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard

Div. cn=Michael L. Coulthard, o=Bureau of Land Management,
ousBranch of Minerals, email=Michael\_Coulthard@blm.gov, c=US
Date: 2012.07.16 13:26:05-06:00'

MCoulthard:mc:7-16-12

RECEIVED: July 18, 2012

API Well Number: 43047529080000

## **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 7/6/2012 API NO. ASSIGNED: 43047529080000

WELL NAME: NBU 1022-3I4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

**CONTACT:** Gina Becker

PROPOSED LOCATION: NWSE 03 100S 220E **Permit Tech Review:** 

> SURFACE: 1496 FSL 2294 FEL **Engineering Review:**

> BOTTOM: 1901 FSL 0494 FEL **Geology Review:**

**COUNTY: UINTAH** 

**LATITUDE**: 39.97473 LONGITUDE: -109.42483 **UTM SURF EASTINGS: 634509.00** NORTHINGS: 4426141.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-01191A PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO** 

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** ✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

**Potash** R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit** 

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:** 

Siting: Suspends General Siting Fee Surface Agreement

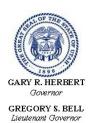
✓ Intent to Commingle R649-3-11. Directional Drill

**Commingling Approved** 

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## Permit To Drill

\*\*\*\*\*\*

Well Name: NBU 1022-3I4BS
API Well Number: 43047529080000
Lease Number: UTU-01191A
Surface Owner: FEDERAL

**Approval Date:** 8/21/2012

### **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### **Commingle:**

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

## Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

# RECEIVED

**UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FEB 2 7 2012

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

5. Lease Serial No. UTU01191A

APPLICATION FOR PERMIT	TO DRILL OR HEEM VERNAL, UTAL	6. If Indian, Allottee of Tribe	Name						
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreement, UTU63047A	Name and No.						
1b. Type of Well: ☐ Oil Well     Gas Well ☐ Oth	ner ☐ Single Zone	8. Lease Name and Well No. NBU 1022-3I4BS							
2. Name of Operator Contact: KERR-MCGEE OIL & GAS ONSHOPMail: GINA.B	GINA T BECKER ECKER@ANADARKO.COM	9. API Well No.	908						
3a, Address P.O. BOX 173779 DENVER, CO 80202-3779	10. Field and Pool, or Explor NATURAL BUTTES	atory							
4. Location of Well (Report location clearly and in accorda	nce with any State requirements.*)	11. Sec., T., R., M., or Blk. a	nd Survey or Area						
	39.974809 N Lat, 109.424855 W Lon	Sec 3 T10S R22E Me	er SLB						
At proposed prod. zone NESE 1901FSL 494FEL 39									
14. Distance in miles and direction from nearest town or post of APPROXIMATELY 57 MILES SOUTHEAST OF	office* VERNAL, UTAH	12. County or Parish UINTAH	13. State UT						
<ol> <li>Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 494</li> </ol>	16. No. of Acres in Lease 1363.00	17. Spacing Unit dedicated to this well							
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on file							
completed, applied for, on this lease, ft. 1090	10433 MD 10022 TVD	WYB000291							
21. Elevations (Show whether DF, KB, RT, GL, etc. 5218 GL	22. Approximate date work will start 08/08/2012	23. Estimated duration 60-90 DAYS							
	24. Attachments								
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Order No. 1, shall be attached to t	his form:							
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	Item 20 above). cm Lands, the 5. Operator certification	ns unless covered by an existing formation and/or plans as may be							
25. Signature (Printed/Typed) (Electronic Submission) Signature GINA T BECKER Ph: 720-929-6086									
Title REGULATORY ANALYST II									
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczka								
Title Assistant Field Manager VERNAL FIELD OFFICE									
Application approval does not warrant or certify the applicant ho	lds legal or equitable title to those rights in the subject le	ase which would entitle the appl	licant to conduct						
operations thereon. Conditions of approval, if any, are attached.	<b>CONDITIONS OF APPROVAL ATTACHE</b>								
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, r States any false, fictitious or fraudulent statements or representat	nake it a crime for any person knowingly and willfully to ions as to any matter within its jurisdiction.	make to any department or age	ncy of the United						

Additional Operator Remarks (see next page)

Electronic Submission #131039 verified by the BLM Well Information System For KERR-MCGEE OIL & GAS ONSHORE SHIP the Vernal

AUG 1 3 2012

DIV. OF OIL, GAS & MINING

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

10 CX CMCRAG

NOTICE OF APPROVAL

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## UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

**VERNAL. UT 84078** 

(435) 781-4400



### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

Kerr-McGee Oil & Gas Onshore, LP

NBU 1022-3I4BS

43-047-52908

API No:

170 South 500 East

Location: Lease No: Agreement: **NWSE Sec. 3, T10S, R22E** 

UTU-01191A **Natural Buttes** 

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)		Twenty-Four (24) hours prior to running casing and cementing all casing strings to:  blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: NBU 1022-3I4BS 7/20/2012

# SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.
- The following will be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.
- All reclamation activities will comply with the Green River Reclamation Guidelines
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled by the proponent throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
  integrated pest management program is applicable, coordination has been undertaken with the
  state and local management program (if existing). A copy of the pest management plan will be
  submitted for each project.
- A pesticide use proposal (PUP) will be obtained for the project, by the proponent if applicable.
- A permitted paleontologist is to be present to monitor construction at all well pads during all surface disturbing actives: examples include the following; building of the well pad, access road, and pipelines.

To maintain compliance with current cactus survey protocols, the following measures will be required

- 1. If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.
- 2. Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3<sup>rd</sup> party surveyor will refer to the current *Sclerocactus* Spot Check Survey Methods, to determine site specific survey distances and intensity levels.
- 3. Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.
- 4. Construction will not commence until written approval is received from the BLM

Page 3 of 7 Well: NBU 1022-3I4BS 7/20/2012

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Uinta Basin hookless cactus is anticipated as a result of project activities.

- Construction or drilling is not allowed from January 1 August 31 on the NBU 1022-30 pad to minimize impacts during golden eagle nesting.
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or
  qualified biologist shall be notified to conduct surveys for raptors. Depending upon the results of
  the surveys, permission to proceed may or may not be granted by the Authorized Officer.
- The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
  - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes:
  - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
  - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32 inch mesh material.
- Approach velocities for intake structures will follow the National Marine Fisheries Service's
  document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream
  intake that operate in stream reaches where larval fish may be present, the approach velocity will
  not exceed 0.33 feet per second (ft/s).
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078

Phone: (435) 781-9453

Kerr McGee can only use the following water source:
 Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

Page 4 of 7 Well: NBU 1022-3I4BS 7/20/2012

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

### SITE SPECIFIC DOWNHOLE COAs:

Gamma ray Log shall be run from Total Depth to Surface.

### Variances Granted:

### Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40'from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT Test. Variance granted due to well-known geology and the problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

Page 5 of 7 Well: NBU 1022-3I4BS 7/20/2012

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 1022-3I4BS 7/20/2012

### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 7 of 7 Well: NBU 1022-3I4BS 7/20/2012

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 37514 API Well Number: 43047529080000

	STATE OF UTAH		FORM 9					
ι	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	=	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A					
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-3I4BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	<b>9. API NUMBER:</b> 43047529080000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 7 3779 720 929-6	9. FIELD and POOL or WILDCAT:					
4. LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: UINTAH					
1496 FSL 2294 FEL QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 0	<b>HIP, RANGE, MERIDIAN:</b> 03 Township: 10.0S Range: 22.0E Merio	dian: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
/	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
4/30/2013	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
DRILLING REPORT								
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
MIRU BUCKET RIG. I INCH 36.7 LB SHEDU SPUD WELL LOCA	COMPLETED OPERATIONS. Clearly show DRILLED 20" CONDUCTOR HOULED 10 CONDUCTOR PIPE. CITION ON APRIL 30, 2013 AT 1 JRFACE DRILL DATE IS 5/14	OLE TO 40 FEET. RAN 14 MT W/ 28 SX READY MIX. 12:30 HRS. PROPOSED	Accepted by the					
NAME (PLEASE PRINT) Luke Urban	<b>PHONE NUMB</b> 720 929-6501	ER TITLE Regulatory Specialist						
SIGNATURE N/A		DATE 5/3/2013	I .					

RECEIVED: May. 03, 2013

Sundry Number: 39521 API Well Number: 43047529080000

	STATE OF UTAH			FORM	9		
ι	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		5.LEASE DESIGNATION AND SERIAL NUMBER UTU-01191A				
SUNDR	Y NOTICES AND REPORTS	SON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	_			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-3I4BS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047529080000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		<b>NE NUMBER:</b> 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATHERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1496 FSL 2294 FEL				COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Me	eridian: S	3	STATE: UTAH			
11. CHECH	K APPROPRIATE BOXES TO INDIC.	ATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION			TYPE OF ACTION				
	ACIDIZE	Па	LTER CASING	CASING REPAIR	Т		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	С	HANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	□ c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FF	RACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	☐ PI	LUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	□ RI	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	☐ si	IDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL			
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		I TA STATUS EXTENSION	APD EXTENSION			
7/1/2013			TUED				
	WILDCAT WELL DETERMINATION		THER	OTHER:	_		
l .	COMPLETED OPERATIONS. Clearly show			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 01, 2013			
NAME (PLEASE PRINT)	PHONE NUM	MBFR	TITLE		_		
Teena Paulo	720 929-6236	MDCK	Staff Regulatory Specialist				
SIGNATURE N/A			<b>DATE</b> 7/1/2013				

RECEIVED: Jul. 01, 2013

Sundry Number: 40811 API Well Number: 43047529080000

	STATE OF UTAH		FORM 9					
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A					
SUNDR	Y NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-314BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047529080000							
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	PI n Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1496 FSL 2294 FEL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: (	IIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Meridiar	n: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOF	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all at the month of July 2013. Well		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: DEPTHS, VOLUMES, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 08, 2013					
NAME (PLEASE PRINT)	PHONE NUMBER							
Teena Paulo SIGNATURE	720 929-6236	Staff Regulatory Specialist  DATE						
N/A		8/5/2013						

Sundry Number: 42793 API Well Number: 43047529080000

	STATE OF UTAH		FORM 9			
ſ	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A			
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-314BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047529080000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	<b>PHONE NUMBER:</b> 17 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1496 FSL 2294 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	<b>HP, RANGE, MERIDIAN:</b> 03 Township: 10.0S Range: 22.0E Mer	idian: S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
9/20/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
	WILDCAT WELL DETERMINATION	U OTHER	<u> </u>			
THE SUBJECT WEL	COMPLETED OPERATIONS. Clearly show L WAS PLACED ON PRODUC WELL HISTORY WILL BE SUB COMPLETION REPORT.	CTION ON 9/20/2013. THE MITTED WITH THE WELL	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 23, 2013			
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUM</b> 720 929-6236	BER TITLE Staff Regulatory Specialist				
SIGNATURE N/A		<b>DATE</b> 9/23/2013				

Sundry Number: 42032 API Well Number: 43047529080000

	STATE OF UTAH				FORM 9		
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191A				
SUNDR	Y NOTICES AND REPORTS	S ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-314BS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047529080000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATHERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1496 FSL 2294 FEL				COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	<b>HP, RANGE, MERIDIAN:</b> 03 Township: 10.0S Range: 22.0E Mer	ridian: S	3	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION			TYPE OF ACTION				
	ACIDIZE	☐ AL	TER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	Сн	IANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	□ co	DMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FR	ACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	☐ PL	UG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME		CLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMA	ATION		
Date of Spud:	REPERFORATE CURRENT FORMATION		DETRACK TO REPAIR WELL	TEMPORARY ABANDON	or		
✓ DRILLING REPORT	L TUBING REPAIR		NT OR FLARE	☐ WATER DISPOSAL ☐			
Report Date: 9/4/2013		∟ sı	TA STATUS EXTENSION	APD EXTENSION	_		
0, 1, 20 10	WILDCAT WELL DETERMINATION	□ от	HER	OTHER:			
No activity for	COMPLETED OPERATIONS. Clearly show the month of August 2013.	Well	TD at 9,260 ft.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD O October 02, 2013			
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUM</b> 720 929-6236		TITLE Staff Regulatory Specialist				
SIGNATURE N/A			<b>DATE</b> 9/4/2013				

Form 3160-4 (August 2007)

### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

	BUREAU OF LAND MANAGEMENT	
\A/E-I-I	COMPLETION OF RECOMPLETION REPORT AND LO	

WELL COMPLETION OR RECOMPLETION REPORT AND LOG								5. Lease Serial No. UTU01191A											
1a. Type of	_	Oil Well	<b>⊠</b> Gas '	Well		Ory	Otl	her							6. If	Indian, A	llottee	or T	ribe Name
b. Type of	Completion			□ Wo	ork Ov	er	☐ Dee	pen	□ P	Plug	Back	☐ Diff	. Resv		7 11	nit or CA	A greet	ment	Name and No.
		Othe	er													TU63047		псп	TVame and Tvo.
2. Name of KERR-I	Operator MCGEE OIL	AND G	AS ONSH <b>Œ</b>	RMEail:	Teena	Conta Paul	ct: TEI o@ana	ENA F adarko	PAULC o.com	O						ase Name BU 1022			No.
3. Address	P.O. BOX DENVER,		)17								. (include 0-6000	area co	de)		9. Al	PI Well N	0.	2	13-047-52908
4. Location	of Well (Rej	port locati	ion clearly ar	d in ac	cordan	ice wit	h Fedei	al requ	uireme	ents)	*					ield and I			
At surface NWSE 1496FSL 2294FEL 39.974809 N Lat, 109.424855 W Lon  11. Sec., T., R., M., or Block and Survey or Area Sec 3 T10S R22E Mer SLB																			
At top prod interval reported below NESE 1906FSL 495FEL  12. County or Parish 13. State																			
At total	1	SE 1876	FSL 502FEL													INTÁH			UT
14. Date Spudded 04/30/2013											RT, GL)*								
18. Total D	epth:	MD TVD	9260 8840		19.	Plug B	ack T.l	D.:	MD TVI		920 878		20	. Dept	h Brio	ige Plug S	Set:	MI TV	
21. Type E CBL/GF	lectric & Oth R/CCL/TEM	er Mecha P	nical Logs R	un (Sul	omit co	ppy of	each)						as DST			⊠ No ⊠ No □ No	□ Y	es (S	Submit analysis) Submit analysis) Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	ort all strings	set in	well)													(	
Hole Size	Size/G	rade	Wt. (#/ft.)	To (M			tom (D)	_	Cemen epth	nter		f Sks. & f Cemer		Slurry V (BBL		Cemen	Top*		Amount Pulled
20.000	14.0	000 STL	36.7		0		40						28						
7.875	4.	500 I-80	11.6		0		9246					15	85				74	0	
11.000	8.6	325 J-55	28.0		26		2720					7	50				(	0	
													+					+	
													+					+	
24. Tubing	Record																		
Size	Depth Set (M	ID) P	acker Depth	(MD)	Siz	ze	Depth	Set (N	MD)	Pa	acker Dep	th (MD	) [	Size	De	pth Set (N	(D)	Pa	cker Depth (MD)
2.375		8759																	
25. Producii				-			26. 1		ation R										
	ormation	TOLL	Тор	50.47	Bot	ttom	_	P	erforat	ted l	Interval	0 7400	S	Size	_	lo. Holes	0 00		Perf. Status
A) B)	WASA MESAVE			5947 7128		7100 9129					5947 To			0.36	$\neg$		6 OPE 2 OPE		
C)	IVIESAVE	KDE		7120		912	3				1120 11	0 9123		0.30	+	10	2 0 0 1	_IN	
D)																			
27. Acid, Fr	acture, Treat	ment, Cer	ment Squeeze	e, Etc.													•		
]	Depth Interva	ıl								An	nount and	Type of	Mate	rial					
	59	47 TO 9	125 PUMP 1	4,182 I	BBL SL	.ICKW/	ATER A	ND 31	9,031 I	LBS	30/50 ME	SH SAN	ID .						
28. Producti	ion - Interval	A																	
Date First	Test	Hours	Test	Oil		Gas		ater		il Gra		Gas		F	roducti	on Method			
Produced 09/20/2013	Date 09/25/2013	Tested 24	Production	BBL 0.0		MCF 3088	- 1	3L 0.0		orr. A	API	Gra	vity			FLC	WS FF	ROM	I WELL
Choke	Tbg. Press.	Csg.	24 Hr.	Oil		Gas		ater		as:Oi	1	We	ll Status						
Size 20/64	Flwg. 1990 SI	Press. 2532.0	Rate	BBL 0	l l	MCF 3088	- 1	BL 0	Ra	atio			PGW	,					
	tion - Interva	l	1 -	<u> </u>								1							
Date First	Test	Hours	Test	Oil		Gas		ater		il Gra		Gas		F	roducti	on Method			
Produced	Date	Tested	Production	BBL		MCF	l <sub>B1</sub>	BL		orr. A	Ari	Gra	vity						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF		ater BL		as:Oi atio	1	We	ll Status						
	SI	I		I	- 1							1							

28b. Pro	duction - Inter	val C										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method			
			Gas MCF					itatus				
28c. Prod	duction - Interv	/al D		·	<u> </u>	<u> </u>		<u> </u>				
Date First Produced			Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity		Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Stat	Status			
29. Dispo	osition of Gas(	Sold, used	for fuel, vent	ed, etc.)		•	•	•				
30. Sumi	mary of Porous	Zones (In	clude Aquife	rs):					31. For	mation (Log) Mar	kers	
tests,	v all important including dep recoveries.	zones of p th interval	orosity and cotested, cushic	ontents there on used, time	eof: Core e tool ope	d intervals and en, flowing an	d all drill-stem id shut-in pressures					
Formation Top Bottom					Descript	ions, Contents, etc.		Name			Top  Meas. Depth	
32. Addi	tional remarks	(include p	lugging nrace	dure):					MA WA	RD'S NEST HOGANY ISATCH SAVERDE		1494 2188 4797 7124
The surfa LTC perfo	first 210 ft. of ace hole was csg was run oration report e enclosed attalectrical/Mecha	the surfactilled with the surfactilled with the surfaction of the	ce hole was h an 11 in. b ß ft. to 9246 rvey.	drilled with	g was ru	un from surfa	ace to 5033 ft.; il well history,	3. D 7 Oı	OST Rep	port	4. Direction	nal Survey

Signature (Electronic Submission) Date 10/16/2013

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

Name (please print) TEENA PAULO

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*

Title STAFF REGULATORY SPECIALIST

				U	S ROC	KIES RE	EGION			
				Opera	tion S	Summa	ry Report			
Well: NBU 1022 Project: UTAH-U		Site: NBL	J 1022-03	J PAD		Spud Date: 6/15/2013  Rig Name No: PROPETRO 12/12, H&P 298/298				
Event: DRILLIN	G	Start Date	Date: 5/30/2013				End Date: 6/29/2013			
Active Datum: F Level)	RKB @5,244.00usft (a	bove Mean S	ea	UWI: N\	N/SE/0/1	0/S/22/E/3	3/0/0/26/PM/S/14	496/E/0/2294/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
6/15/2013	14:30 - 16:30	2.00	MIRU	01	В	Р	66	SKID RIG 20' RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.		
	16:30 - 17:00	0.50	DRLSUR	23		Р	66	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, NOV CREW, AND SCIENTIFIC CREW. REVEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD.		
	17:00 - 17:30	0.50	DRLSUR	06	Α	Р	66	PICK UP 12 1/4" BIT & 8" MUD MOTOR. TRIP IN HOLE.		
	17:30 - 18:30	1.00	DRLSUR	02	В	Р	66	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 166 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 800/600 TORQUE ON/OFF BOTTOM = 2,500/1,000 UP/DN/ROT = 22/20/20 NOV ON LINE MUD WT = 8.4		
	18:30 - 19:00	0.50	DRLSUR	06	Α	Р	232	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT		
	19:00 - 20:30	1.50	DRLSUR	06	Α	Р	232	PICK UP 11" BIT & DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE		
	20:30 - 0:00	3.50	DRLSUR	02	В	Р	232	DRILL 11". SURFACE HOLE, F/ 210' - T/ 740", 530' @ 151 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 50, MOTOR RPM 83, TOTAL RPM 133. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 950/730 TORQUE ON OFF = 2,500/1,200 UP/DOWN/ ROT 63/58/60 K. DRAG 3 K. NOV ON LINE MUD WT 8.4 SLID 174' = 18% 5.0' ABOVE & 1.0' LEFT OF THE LINE NO HOLE ISSUES.		
6/16/2013	0:00 - 6:00	6.00	DRLSUR	02	В	Р	762	DRILL 11". SURFACE HOLE, F/ 740' - T/ 1,310', 570' @ 95 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,060/860 TORQUE ON OFF = 2,900/1,800 UP/DOWN/ ROT 70/56/64 K. DRAG 6 K. NOV ON LINE MUD WT 8.4 SLID 46' = 6.78% 3.21' ABOVE & 1.85' RIGHT OF THE LINE NO HOLE ISSUES.		

#### API Well Number: 43047529080000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3I4BS BLUE Spud Date: 6/15/2013 Project: UTAH-UINTAH Site: NBU 1022-03J PAD Rig Name No: PROPETRO 12/12, H&P 298/298 **Event: DRILLING** End Date: 6/29/2013 Start Date: 5/30/2013 UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0 Active Datum: RKB @5,244.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 6:00 - 17:00 11.00 DRLSUR 02 Ρ 1332 В DRILL 11". SURFACE HOLE, F/ 1,310' - T/ 2,120', 810' @ 73.6 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 45, MOTOR RPM 83, TOTAL RPM 128. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,120/910 TORQUE ON OFF = 3,100/2,000 UP/DOWN/ ROT 94/60/74 K. DRAG 20 K. NOV ON LINE MUD WT 8.4 SLID 378' = 26.81% 19.1' ABOVE & 1.5' RIGHT OF THE LINE LOST CIRC @ 1,600'. 17:00 - 0:00 7.00 **DRLSUR** 02 2142 DRILL 11". SURFACE HOLE, F/ 2,120" - T/ 2,510', 390' @ 55.7 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 45, MOTOR RPM 83, TOTAL RPM 128. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,170/1,020 TORQUE ON OFF = 3,100/2,000 UP/DOWN/ ROT 95/65/80 K. DRAG 15 K. NOV ON LINE MUD WT 8.4 SLID 10' = 2.94% 12.4' ABOVE & 0.58' RIGHT OF THE LINE LOST CIRC @ 1,600'. 6/17/2013 0:00 - 4:30 4.50 **DRLSUR** 2532 02 DRILL 11". SURFACE HOLE, F/ 2,510" - T/ 2,721', 211' @ 46.8 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55. MOTOR RPM 83. TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,350/1,150 TORQUE ON OFF = 3.100/2.000 UP/DOWN/ ROT 105/62/85 K. DRAG 20 K. NOV ON LINE MUD WT 8.4 SLID 10' = 4.29% 11.06' ABOVE & 1.78' LEFT OF THE LINE LOST CIRC @ 1,600'. - 6:30 2.00 **DRLSUR** 05 С 2743 CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS HALF FULL / 400 BBL **UPRIGHT STORAGE TANKS EMPTY** 6:00 - 9:30 3.50 DRLSUR 2743 LAY DOWN DRILL PIPE AND DIRECTIONAL TOOLS. 06 D 9:30 - 10:00 2743 0.50 DRLSUR 12 PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW . MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.

				U	S ROC	KIES RI	EGION				
Well: NBU 1022-3I4BS BLUE  Operation Summary Report  Spud Date: 6/15/2013											
Event: DRILLIN	G	Start Date	e: 5/30/20	13							
Active Datum: F Level)	RKB @5,244.00usft (a	bove Mean S	Sea	UWI: NV	V/SE/0/1	0/S/22/E/	3/0/0/26/PM/S/14	496/E/0/2294/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
	10:00 - 14:00	4.00	DRLSUR	12	С	Р	2743	RAN 57 JOINTS (2,535.00') OF 8-5/8", 28#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2177'. LANDED SHOE @ 2,535' KB. BAFFLE PLATE @ 2489.01' KB.			
	14:00 - 15:30	1.50	DRLSUR	12	E	P	2743	PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 2000 PSI. PUMP 150 BBLS OF WATER AHEAD CLEARING SHOE. MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 300 SX OF PREMIUM CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE. 61.4 BBLS MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY, DISPLACE WITH 165 BBLS OF FRESH WATER. NO RETURNS THROUGH OUT JOB, FINAL LIFT OF 275 PSI AT 4 BBL/MINUTE. BUMP THE PLUG WITH 575 PSI, HELD 575 PSI FOR 5 MINUTES, TESTED FLOAT AND FLOAT HELD.  RELEASE RIG @ 15:30, 6/17/2013  TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 3% GR-3, & .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE. WAIT ON CEMENT RETURNS TO SURFACE. WAIT ON CEMENT RETURNS TO SURFACE. WAIT ON CEMENT 2.5 HOURS. TOP JOB # 2: CEMENT DOWN BACKSIDE WITH 200 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & .25 LB/SX FLO SEAL, 40.9 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. WAIT ON CEMENT 2 HRS TOP JOB # 3: CEMENT DOWN BACKSIDE WITH 100 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & .25 LB/SX FLO SEAL, 20.4 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX.  WAIT ON CEMENT RETURNS TO SURFACE. HOLE STOOD FULL. RIG DOWN PRO PETRO CEMENTERS.			
0/00/2242	5:00	4.00	MIRLIO	0.1	0	Б		(CEMENT JOB FINISHED @ 20:20 6/17/2013).			
6/26/2013	5:00 - 6:00 6:00 - 7:00	1.00	MIRU3 PRPSPD	01 14	C A	P P		PREPARE & SKID RIG CENTER OVER WELL NIPPLE UP BOP'S & EQUIPMENT			

#### API Well Number: 43047529080000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3I4BS BLUE Spud Date: 6/15/2013 Project: UTAH-UINTAH Site: NBU 1022-03J PAD Rig Name No: PROPETRO 12/12, H&P 298/298 **Event: DRILLING** End Date: 6/29/2013 Start Date: 5/30/2013 UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0 Active Datum: RKB @5,244.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 7:00 - 10:00 3.00 **PRPSPD** 15 Ρ Α MU TEST ASSY & PRESSURE TEST H&P EQUIPMENT - BLIND RAMS, PIPE RAMS, FLOOR VALVES, MANUEL VALVE, KILL LINES & KILL VALVES, BOP WING VALVES, HCR VALVE, INNER & OUTER CHOKE VALVES, CHOKE MANIFOLD TO 250 PSI LOW FOR 5MINUTES & HIGH TEST TO 5000 PSI FOR 10 MINUTES, TEST ANNULAR 250 PSI LOW FOR 5 MINUTES & 2500 PSI FOR 10 MINUTE HIGH TEST / TEST CASING FOR 30 MINUTES @ 1500 PSI 10:00 - 10:30 0.50 **PRPSPD** 15 Α PRESSURE TEST MI SWACO TO 1000 PSI FOR 10 MINS 10:30 - 11:00 0.50 Р **PRPSPD** 14 В **INSTALL WEAR BUSHING** 11:00 - 12:00 1.00 **PRPSPD** 06 Α Р 0 PICK UP DIRECTIONAL BHA WITH WEATHERFORD SCRIBE, ORIENTATE & TEST SAME TIH TO 2523' 12:00 - 13:00 1.00 PRPSPD LEVEL DERRICK & PRE SPUD INSPECTION 07 Р R 13:00 - 14:00 1.00 **DRLPRC** 02 2595 DRILL CEMENT & SHOE TRACK FROM 2,595' TO 2,713' CLEAN OUT RAT HOLE TO 2,743' 14:00 - 0:00 DRLPRC 10.00 02 В Р 2743 DRILL /SLIDE / SURVEY/ F/ 2,743' TO 4,175'= 1,432' =143.20FPH WOB 22,000-24,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2230/1860 TORQUE ON/OFF BTM 9000/7000 PICK UP WT 140,000 SLACK OFF WT 80,000 ROT WT 100,000 SLIDE 373' IN 240 MINS. 25.23% OF FOOTAGE DRILLED, 42.11%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.6 VIS 28 **NOV-D WATER** SWACO OFF LINE 6/27/2013 0:00 - 6:00 6.00 DRLPRC 4175 02 В DRILL /SLIDE / SURVEY/ F/ 4,175' TO 4,915'= 740' =123.33FPH WOB 22,000-24,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2230/1860 TORQUE ON/OFF BTM 9000/7000 PICK UP WT 172,000 SLACK OFF WT 83,000 ROT WT 109,000 SLIDE 145' IN 155 MINS. 25.57% OF FOOTAGE DRILLED, 51.67%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.7 VIS 28 **NOV-D WATER** SWACO OFF LINE

#### API Well Number: 43047529080000 US ROCKIES REGION **Operation Summary Report** Spud Date: 6/15/2013 Well: NBU 1022-3I4BS BLUE Project: UTAH-UINTAH Site: NBU 1022-03J PAD Rig Name No: PROPETRO 12/12, H&P 298/298 **Event: DRILLING** End Date: 6/29/2013 Start Date: 5/30/2013 UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0 Active Datum: RKB @5,244.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 6:00 - 12:00 6.00 DRLPRC 02 В Ρ 4915 DRILL /SLIDE / SURVEY/ F/ 4,915' TO 6,112'= 1,197' =199.5 FPH WOB 22,000-24,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2450/2100 TORQUE ON/OFF BTM 13000/8500 PICK UP WT 200,000 SLACK OFF WT 100,000 ROT WT 125,000 SLIDE 85' IN 85 MINS. 7.10% OF FOOTAGE DRILLED, 23.61%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.9 VIS 31 **NOV-D WATER** SWACO OFF LINE 12:00 - 12:30 0.50 **DRLPRC** 07 6112 SERVICE RIG @ 6,112' 12:30 - 0:00 11.50 **DRLPRV** 02 В Ρ 6112 DRILL /SLIDE / SURVEY/ F/ 6,112 TO 7,529'= 1,417' =123.22 FPH WOB 23,000-28,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2550/2350 TORQUE ON/OFF BTM 13000/11000 PICK UP WT 251,000 SLACK OFF WT 101,000 **ROT WT 150,000** SLIDE 61' IN 95 MINS. 4.32% OF FOOTAGE DRILLED, 13.19%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 32 NOV-D WATER SWACO OFF LINE

#### API Well Number: 43047529080000 US ROCKIES REGION **Operation Summary Report** Spud Date: 6/15/2013 Well: NBU 1022-3I4BS BLUE Project: UTAH-UINTAH Site: NBU 1022-03J PAD Rig Name No: PROPETRO 12/12, H&P 298/298 **Event: DRILLING** End Date: 6/29/2013 Start Date: 5/30/2013 UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0 Active Datum: RKB @5,244.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 6/28/2013 0:00 - 3:00 3.00 **DRLPRV** 02 В Ρ 7529 DRILL / SURVEY/ F/ 7,529'TO 7,812'= 283' =94.33 **FPH** WOB 23,000-28,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2740/2450 TORQUE ON/OFF BTM 16000/13000 PICK UP WT 274,000 SLACK OFF WT 109,000 ROT WT 162,000 NO SLIDES NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 32 NOV-D WATER SWACO OFF LINE 3:00 - 4:00 1.00 DRLPRV 7812 WEATHERFORD TROUBLE SHOOT MWD **ELECTRONICS** \*\*\* TROUBLE SHOOT MWD \*\*\* - 10:30 4:00 6.50 DRLPRV 02 В 7812 DRILL /SLIDE / SURVEY/ F/ 7,812'TO 8,661'= 283' =130.61 FPH WOB 23,000-28,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2740/2450 TORQUE ON/OFF BTM 18000/13000 PICK UP WT 278 000 SLACK OFF WT 115,000 ROT WT 170 000 SLIDE 37' IN 65 MINS. 2.73% OF FOOTAGE DRILLED.7.88%OF HRS NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND.W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.2 VIS 34 **NOV-D WATER** SWACO OFF LINE 10:30 - 11:00 0.50 DRLPRV 07 Α 8661 **SERVICE RIG @ 8,661'**

### API Well Number: 43047529080000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3I4BS BLUE Spud Date: 6/15/2013 Project: UTAH-UINTAH Site: NBU 1022-03J PAD Rig Name No: PROPETRO 12/12, H&P 298/298 **Event: DRILLING** End Date: 6/29/2013 Start Date: 5/30/2013 UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0 Active Datum: RKB @5,244.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 11:00 - 18:30 7.50 **DRLPRV** 02 В Ρ 8661 DRILL / SURVEY/ F/ 8,661'TO 9,260' TD'= 599' =79.87 FPH WOB 24.000-28.000 **TOP DRIVE RPM 50-75** MUD MOTOR RPM 123 / 104 PUMPS 130 SPM = 585 / 495 GPM PUMP PRESSURE ON/OFF BTM 2740/2450 TORQUE ON/OFF BTM 18000/13000 PICK UP WT 285,000 SLACK OFF WT 120,000 **ROT WT 165,000** NO SLIDES 100 BBL FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 11.1 VIS 36 START DISPLACING WELL @ 8750' **NOV-OFF LINE** SWACO OFF LINE 4' FLARE 18:30 - 21:00 2.50 **DRLPRV** 06 Ε Р 9260 SHORT TRIP FROM 9,260' TO 8,200' WITH NO PROBLEMS & NO FILL DRLPRV Ρ 21:00 - 22:30 1.50 05 С 9260 CIRCULATE & CLEAN HOLE @ 9,260' TD 11.8 PPG MUD WT VIS 38 22:30 - 0:00 1.50 **DRLPRV** Р 9260 TOOH FROM 9,260' TO 8,243' WITH NO PROBLEMS 06 Α 0:00 - 5:00 6/29/2013 5.00 DRLPRV Ρ 8200 06 Α TOOH FROM 8,200' TO BIT WITH NO PROBLEMS TIGHT HOLE @ 5,200' WORK SAME Р 5:00 - 5:30 0.50 **DRLPRV** R PULL WEAR BUSHING 14 5:30 - 7:00 PJSM RIG UP FRANKS CASING EQUIPMENT 1.50 **CSGPRO** 12 Α Ρ 7:00 - 14:30 7.50 **CSGPRO** 12 С Ρ 0 RUN 4 1/2",11.60# - I-80 PRODUCTION CASING TO 9,246.30 / SHOE @ 9,246.30' / FLOAT COLLAR @ 9,201.20' / MVerde Marker @7,127.54' / X-O @ 5,032.93' / 96 JTS OF LTC I-80 / 114 JTS OF DQX I-80 TOTAL JTS RAN 210 / LAND HANGER WITH 85k 14:30 - 16:00 1.50 **CSGPRO** 9246 05 CIRCULATE HOLE CLEAN @ 9,246' / MEANWHILE Α RIG DOWN FRANKS CASING EQUIPMENT & HOLD PJSM WITH BJ CEMENTERS

10/7/2013 2:15:23PM 7

ALT WE	ell Number	• 4304	132300			KIES RE	EGION	
				Opera	tion S	umma	ry Report	
Well: NBU 1022	2-314BS BLUE						Spud Date: 6/1	15/2013
Project: UTAH-l	JINTAH		Site: NBL	J 1022-03	J PAD			Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLIN	G		Start Date	e: 5/30/20	)13			End Date: 6/29/2013
Active Datum: F Level)	RKB @5,244.00usft (al	bove Mean S	Sea	UWI: N	W/SE/0/1	0/S/22/E/3	3/0/0/26/PM/S/14	196/E/0/2294/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 19:00 19:00 - 20:00	1.00	CSGPRO	12	Е	P	9246	INSTALL BJ CMT HEAD, TEST PUMP & LINES TO 4,604 PSI, DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 545 SKS LEAD CEMENT @ 12.5 PPG, 192.49 BBL SLURRY (PREM LITE II + .0.25 pps CELLO FLAKE + 5 pps KOL SEAL +0.4 bwocFL52+ .05 lb/sx STATIC FREE + 8% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.35 % R-3 + 101.8% FRESH WATER / (10.44 gal/sx,1.98 yield) + 1040 SX TAIL @ 14.3 ppg 244.35 BBL SLURRY (CLS G 50/50 POZ + 10% SALT + .005lbs/sx STATIC FREE + .2% R3 +0.5%bwocEC-1+ .002 GPS FP-6L + 2% BENTONITE + 58.9% FW / (5.94 gal/sx, 1.32 yield) / DROP TOP PLUG & DISPLACE W/ 143 BBLS H2O + ADDITIVES / PLUG DOWN @ 18:24 HOURS / FLOATS HELD W/ 1.50 BBLS H2O RETURNED TO INVENTORY/ GOOD CIRC THROUGH OUT 2 BBLS CEMENT TO PIT / LIFT PRESSURE @ 1992 PSI / BUMP PRESSURE TO 2518 PSI / TOP OF TAIL CEMENT CALCULATED @ 4,270' / JOB WENT WELL WITH NO PROBLEMS / RIG DOWN CMT EQUIPMENT
		1.00	OGGENO	17	ь	Г		FLUSH BOP'S & EQUIPMENT / SET PACK OFF WITH CAMERON / CHANGE OUT BAILS
	20:00 - 21:00	1.00	CSGPRO	14	Α	Р		NIPPLE DOWN BOP'S & EQUIPMENT / RELEASE RIG @ 21:00 HRS 6/29/13

10/7/2013 2:15:23PM 8

### General

### **Customer Information** <del>[</del>:

Company	US ROCKIES REGION
Representative	
Address	

# Well/Wellbore Information 1.2

				A
				ΡI
			US ROCKIES REGION	We:
				11
General				Num
Customer Information				ber:
Company	US ROCKIES REGION			4
Representative				30
Address				)4
Well/Wellbore Information	ion			75290
Well	NBU 1022-314BS BLUE	Wellbore No.	HO	)8(
Well Name	NBU 1022-3I4BS	Wellbore Name	NBU 1022-3I4BS	00
Report No.	1	Report Date	9/9/2013	00
Project	UTAH-UINTAH	Site	NBU 1022-03J PAD	)
Rig Name/No.		Event	COMPLETION	
Start Date	9/3/2013	End Date	9/20/2013	
Spud Date	6/15/2013	Active Datum	RKB @5,244.00usft (above Mean Sea Level)	
UWI	NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1496/E/0/2294/0/0			

### General ..

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

Summary

1.5

### Initial Conditions 1.4

Fluid Type		Fluid Density	Gross Interval	5,947.0 (usft)-9,125.0 (usft   Start Date/Time	Start Date/Time	9/9/2013 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	73	73 End Date/Time	9/9/2013 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	248	248 Net Perforation Interval	77.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.22 (shot/ft)	3.22 (shot/ft) Final Surface Pressure	
Balance Cond NEUTRAL	NEUTRAL				Final Press Date	

# Intervals

RECEIVED: Oct.

### Perforated Interval 2.1

Misrun	_
Reason	23.00 PRODUCTIO N
Charge Weight (gram)	23.00
Phasing Charge Desc /Charge (°) Manufacturer	
Phasing (°)	120.00
Carr Size (in)	3.375
Carr Type /Stage No	EXP/
Diamete r (in)	0.360 EXP/
Misfires/ Add. Shot	
Shot Density (shot/ft)	3.00
CCL-T MDTop MD Base S (usft) (usft)	5.949.0
MD Top (usft)	5.947.0
CCL-T S (usft)	
(nst)	
Formation/ Reservoir	WASATCH/
Date	9/9/2013 12:00AM

OpenWells

2013

16,

OpenWells

Perforated Interval (Continued)

October 07, 2013 at 2:23 pm

Perforated Interval (Continued)

Date Reservoir (usft)  9/9/2013 MESAVERDE/ 12:00AM 9/9/2013 MESAVERDE/	(usft)									N
		MD Top (usft)	MD Base (usft)	Shot Misfires/ Density Add. Shot (shot/ft)	Diamete Carr Typ	Carr Type /Stage No Size	Phasing Charge Desc / Charge (°) Manufacturer	Charge Reason Weight (gram)	Misrun	umber
		7,472.0	7,473.0	4.00	0.360 EXP/	3.375	90.00	23.00 PRODUCTIO	Q	·: 4
		7,510.0	7,511.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	1304
		7,518.0	7,519.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	175
		7,543.0	7,544.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	290
		7,570.0	7,571.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	800
		7,600.0	7,601.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	00
		7,662.0	7,663.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,683.0	7,684.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,751.0	7,752.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,787.0	7,788.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,801.0	7,802.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,924.0	7,925.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,951.0	7,952.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,962.0	7,963.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		7,996.0	7,997.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		8,247.0	8,248.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		8,274.0	8,275.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
		8,297.0	8,298.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	Q	
12:00AM		8,311.0	8,312.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	<u>O</u>	
9/9/2013 MESAVERDE/ 12:00AM		8,322.0	8,323.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	<u>O</u>	
9/9/2013 MESAVERDE/ 12:00AM		8,342.0	8,343.0	3.00	0.360 EXP/	3.375	120.00	23.00 PRODUCTIO	<u>o</u>	

October 07, 2013 at 2:23 pm

OpenWells

Perforated Interval (Continued) 2.1

													Ö	US ROCKIES REGION	
2.1 Pe	Perforated Interval (Continued)	(Continu	ed)												ll Nu
Date	Formation/ Reservoir	(Jsn)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Mis Density Add (shot/ft)	Misfires/ DAdd. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (*)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	umber Univer
9/9/2013 12:00AM	MESAVERDE/			8,367.0	8,368.0	3.00		<u>0</u>	EXP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	: 4
9/9/2013 12:00AM	MESAVERDE/			8,401.0	8,402.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO N	304
9/9/2013 12:00AM	MESAVERDE/			8,427.0	8,428.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	175
9/9/2013 12:00AM	MESAVERDE/			8,477.0	8,478.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO	290
9/9/2013 12:00AM	MESAVERDE/			8,503.0	8,504.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 PI	23.00 PRODUCTIO N	800
9/9/2013 12:00AM	MESAVERDE/			8,528.0	8,529.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	00
9/9/2013 12:00AM	MESAVERDE/			8,553.0	8,554.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,576.0	8,577.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,603.0	8,604.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,627.0	8,628.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00 PI N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,658.0	8,659.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,673.0	8,674.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00 P	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,687.0	8,688.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,702.0	8,703.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 PI N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,731.0	8,732.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,748.0	8,749.0	3.00		0.360 E)	EXP/	3.375	120.00		23.00 PI N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,772.0	8,773.0	4.00		0.360 E)	EXP/	3.375	90.00		23.00 P	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,788.0	8,789.0	4.00		0.360 E)	EXP/	3.375	90.00		23.00 PI N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,803.0	8,804.0	4.00		0.360 E)	EXP/	3.375	90.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,851.0	8,852.0	4.00		0.360 EXP/	XP/	3.375	90.00		23.00 P N	23.00 PRODUCTIO N	
9/9/2013 12:00AM	MESAVERDE/			8,879.0	8,880.0	4.00		0.360 EXP/	XP/	3.375	90.00		23.00 P	23.00 PRODUCTIO N	

October 07, 2013 at 2:23 pm

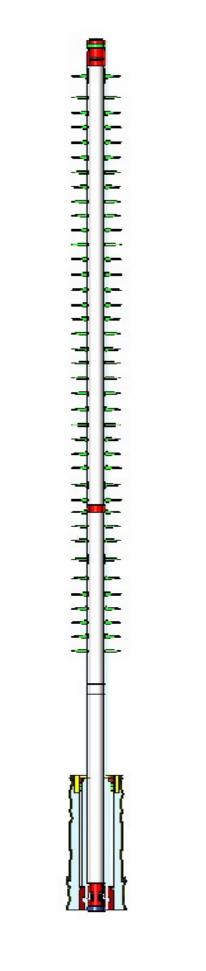
OpenWells

Perforated Interval (Continued)

API Well	Nu	ımber	: 4	304	1752	290	800	00			
REGION		Misrun									
US ROCKIES REGION		Reason	23.00 PRODUCTIO N								
		Charge Weight (gram)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
		Charge Desc /Charge Manufacturer									
		Phasing (°)	90.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
		Carr Size (in)	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375
		Carr Type /Stage No	EXP/	EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/
		Diamete r (in)	0.360 EXP/	0.360 EXP/	0.360	0.360	0.360	0.360	0.360	0.360	0.360
		Misfires/ Add. Shot									
		Shot Density (shot/ft)	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		MD Base (usft)	8,902.0	8,959.0	8,974.0	8,985.0	9,037.0	9,062.0	9,093.0	9,108.0	9,125.0
		(nsft)	8,901.0	8,958.0	8,973.0	8,984.0	9,036.0	9,061.0	9,092.0	9,107.0	9,124.0
	(pai	CCL-T S (usft)									
	(Contin	(JJSn)									
	Perforated Interval (Continued)	Formation/ Reservoir	MESAVERDE/								
	2.1 P	Date	9/9/2013 12:00AM								

### Plots

### Wellbore Schematic 3.1



October 07, 2013 at 2:23 pm

				U	S ROCK	(IES RE	GION	
			(	Opera	tion S	umma	ry Report	
Well: NBU 1022-3I4	BS BLUE						Spud Date: 6/1	5/2013
Project: UTAH-UINT	ΓAH		Site: NBU	1022-03	J PAD			Rig Name No:
Event: COMPLETIO	DN		Start Date	: 9/3/201	3			End Date: 9/20/2013
Active Datum: RKB Level)	@5,244.00usft (abo	ove Mean Se	ea	UWI: NV	V/SE/0/10	)/S/22/E/3	/0/0/26/PM/S/14	96/E/0/2294/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/6/2013	-							
9/3/2013 11	0:00 - 11:00	1.00	SUBSPR	52	В	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES  1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 63 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.  PRESSURE TEST 8 5/8 X 4 1/2 TO 508 PSI HELD FOR 5 MIN LOST -169 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 3 BBLS H2O
9/6/2013 6	6:30 - 6:45	0.25	SURFPR	48		Р		HSM,
	7:00 - 11:00 6:45 - 7:00	4.00 0.25	SUBSPR SURFPR	37 48	С	P P		MIRU CASEDHOLE SOLUTIONS PERF STAGE 1 MESA VERDE AS PER DESIGN HSM, OVER HEAD LOADS
	7:00 - 17:00	10.00	FRAC	36	B	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS  FRAC STG #1] WHP=1,726#, BRK DN PERFS=3,980,#, @=4.7 BPM, INTIAL ISIP=2,287#, FG=.69, FINAL ISIP=2,565#, FG=.72,  SET PLUG & PERFORATE STG #2  FRAC STG #2] WHP=1,224#, BRK DN PERFS=6,336#, @=3.9 BPM, INTIAL ISIP=2,498#, FG=.72, FINAL ISIP=2,615#, FG=.73,  SET PLUG & PERFORATE STG #3  FRAC STG #3] WHP=2,354#, BRK DN PERFS=3,480#, @=4.1 BPM, INTIAL ISIP=2,480#, FG=.72, FINAL ISIP=2660#, FG=.74,  SET PLUG & PERFORATE STG #4  FRAC STG #4] WHP=2,033#, BRK DN PERFS=3,780#, @=4.6 BPM, INTIAL ISIP=2,384#, FG=.72, FINAL ISIP=2,679#, FG=.75 SWIFN.,
9/10/2013 6	6:45 - 7:00	0.25	FRAC	48		Р		HSM, SLIPPERY CONDITIONS

				U	S ROCI	KIES RE	GION	
				Opera	tion S	umma	ry Report	
/ell: NBU 1022	-3I4BS BLUE						Spud Date: 6/	15/2013
roject: UTAH-L	JINTAH		Site: NBU	1022-03	J PAD			Rig Name No:
vent: COMPLE	TION		Start Date	e: 9/3/201	3			End Date: 9/20/2013
ctive Datum: R evel)	RKB @5,244.00usft (a	bove Mean S	ea	UWI: NV	N/SE/0/10	0/S/22/E/3	/0/0/26/PM/S/14	496/E/0/2294/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	FRAC	36	В	Р		SET PLUG & PERFORATE STG #5
								FRAC STG #5] WHP=1,721#, BRK DN PERFS=3,568#, @=4.8 BPM, INTIAL ISIP=1,865#, FG=.66, FINAL ISIP=2,250#, FG=.71,  SET PLUG AND PERFORATE STG #6  FRAC STG #6] WHP=1,169#, BRK DN PERFS=4,978#, @=3.8 BPM, INTIAL ISIP=2220#, FG=.72, FINAL ISIP=2,316#, FG=.73,  SET PLUG AND PERFORATE STG #7  FRAC STG #7] WHP=885#, BRK DN PERFS=2,066#,
9/11/2013	6:45 - 7:00	0.25	FRAC	48		P		@=4.1 BPM, INTIAL ISIP=1,373#, FG=.62, FINAL ISIP=1,898#, FG=.69,  SET PLUUG AND PERFORATE STG #8 SWIFN HSM,
9/12/2013	7:00 - 17:30 6:45 - 7:00 7:00 - 12:00	0.25 5.00	FRAC FRAC FRAC	36 48 36	В	P P		FRAC STG #8] WHP=955#, BRK DN PERFS=2,777#, @=3.8 BPM, INTIAL ISIP=1,802#, FG=.68, FINAL ISIP=1,850#, FG=.68,  SET PLUG AND PERFORATE STG #9  FRAC STG #9] WHP=301#, BRK DN PERFS=2,531#, @=3.7 BPM, INTIAL ISIP=1,435#, FG=.64, FINAL ISIP=2,087#, FG=.73,  SET PLUG AND PERFORATE STG #10  FRAC STG #10] WHP=212#, BRK DN PERFS=2,035#, @=3.8 BPM, INTIAL ISIP=1,592#, FG=.68, FINAL ISIP=1,736#, FG=.70,  SET PLUG AND PERFORATE STG #11 HSM, RIGGING DOWN  FRAC STG #11] WHP=169#, BRK DN PERFS=1,707#, @=3.1 BPM, INTIAL ISIP=884#, FG=.59, FINAL ISIP=1,357#, FG=.66,  SET TOP KILL
9/19/2013	12:30 - 14:00	1.50	DRLOUT	30	Α	Р		TOTAL BBLS=14,182 TOTAL SAND=319,031# RIGGED UP, ND WH NU BOPS, RU FLOOR & TBG
	14:00 - 17:00	3.00	DRLOUT	31	I	Р		EQUIP. TALLY & PU 37/8 BIT, POBS, 1.875 X/N & TBG TO
9/20/2013	7:00 - 7:30	0.50	DRLOUT	48		Р		KILL PLUG RU DRLG EQUIP SDFN. HSM, WATHING FOR LEAKS WHILE DRILLING PLUGS.

API We	ll Number	4304	752908			KIES R	EGION	
				Opera	tion S	umma	ary Report	
Well: NBU 1022-	3I4BS BLUE						Spud Date: 6/19	5/2013
Project: UTAH-U			Site: NBL	J 1022-03	J PAD		<u>'</u>	Rig Name No:
Event: COMPLE	TION		Start Date	e: 9/3/201	3			End Date: 9/20/2013
Active Datum: RI	KB @5,244.00usft (ab	ove Mean S	_			0/S/22/E/	3/0/0/26/PM/S/149	96/E/0/2294/0/0
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
	7:30 - 17:30	(hr) 10.00	DRLOUT	44	Code C	P	(usft)	BROKE CIRC CONV, TEST BOPS TO 3,000 PSI, RIH.
								C/O 15' SAND TAG 1ST PLUG @ 5897' DRL PLG IN 3 MIN, 0 PSI INCREASE RIH.
								C/O 30' SAND TAG 2ND PLUG @ 6091' DRL PLG IN 2 MIN, 100 PSI INCREASE RIH.
								C/O 25' SAND TAG 3RD PLUG @ 6671' DRL PLG IN 4 MIN, 200 PSI INCREASE RIH.
								C/O 40' SAND TAG 4TH PLUG @ 7175' DRL PLG IN 4 MIN, 0 PSI INCREASE RIH.
								C/O 15' SAND TAG 5TH PLUG @ 7498' DRL PLG IN 4 MIN, 300 PSI INCREASE RIH.
								C/O 20' SAND TAG 6TH PLUG @ 7701' DRL PLG IN 8 MIN, 400 PSI INCREASE RIH. @ 11:00 SWIVEL TURNING HARD SHUT DWN TO PUT CHAIN IN DERICK WHILE PULLING SAND LINE TIGHT IT BROKE SAND LINE CAME OVER THE CROWN, TOOL PUSHER CAME DOWN OFF STAIRS FELL & HURT LEG HAD TO GET AMBULANCE. REPURED ROPE SOCKET ON SAND LINE. CONTINUE DRILLING.@ 1300 HRS.
								C/O 40' SAND TAG 7TH PLUG @ 8027' DRL PLG IN 10 MIN, 600 PSI INCREASE RIH.
								C/O 35' SAND TAG 8TH PLUG @ 8389' DRL PLG IN 10 MIN, 600 PSI INCREASE RIH.
								C/O 60' SAND TAG 9TH PLUG @ 8617' DRL PLG IN 8 MIN, 500 PSI INCREASE RIH.
								C/O 20' SAND TAG 10TH PLUG @ 8762' DRL PLG IN 12 MIN, 700 PSI INCREASE RIH
								C/O 30' SAND TAG 11TH PLUG @ 8932' DRL PLG IN 7 MIN, 600 PSI INCREASE RIH
								C/O TO 9192', CIRC CLN, RD SWIVEL, L/D 14 JTS, LAND TBG, ND BOPS NU WH, TEST FL TO 3,000 PSI, PUMPED OFF BIT, TURN WELL TO FB CREW.SDFWE
								KB = 19' 41/16 HANGER = .83' ( SURFACE VALVE OPEN & LOCKED ) 137 JTS 23/8 L-80 = 4347.62' SICP 2450 FTP 100 6' L-80 PUP JT = 6.13' 150 JTS 23/8 J-55 = 4375.90' POBS W/ 1.875 X/N = 2.20' EOT @ 8758.68'

API Wel	<del>ll Number</del>	<del>: 4304</del> '	752908			KIES RI	EGION	
				Opera	tion S	Summa	ry Report	
Well: NBU 1022-3	BI4BS BLUE						Spud Date: 6/1	5/2013
Project: UTAH-UII	NTAH		Site: NBL	J 1022-03	J PAD			Rig Name No:
Event: COMPLET	ION		Start Dat	e: 9/3/201	13			End Date: 9/20/2013
Active Datum: RK Level)	B @5,244.00usft (al	oove Mean Se	ea	UWI: N\	W/SE/0/1	0/S/22/E/3	3/0/0/26/PM/S/14	96/E/0/2294/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
							, ,	TWTR 14,932 BBLS
								TWR 2,000
								TWLTR 12,932 BBLS
								326 JT HAULED OUT, 150 J-55, 176 L-80. 287 LANDED 39 TO RETURN

Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Projected Coordinate System: NAD27 / UTM zone 12N Field: NATURAL BUTTES\_ANADARKO\_NAD27

site: NBU 1022-3J PAD
Unit: USFeet TVD Reference:
Company Name: ANADARKO osition:

: 14520795.16USft Latitude: 39.974871° 2081911.95USft Longitude: -109.424172° Grid Convergence: 1.01° Northing: 14520795.16USft Easting: 2081911.95USft Elevation Above VRD: 5218.00USft Worth Reference: True

Well Number:

Slot: NBU 1022-314BS

Offset is from Site centre +N/-S: -10.20USft Northing: 14520784.96USft Latitude: 39.974843° +E/-W: -0.28USft Easting: 2081911.85USft Longitude: -109.424173°

Elevation Above VRD: 5218.00USft

-0.48 -2.70 2.52 0.00 Turn (DLSU) 0.46 -0.42 0.25 0.00 DLS Toolface Build (o) (DFSU) Position offsets from Slot centre (USft) (DLSU) VSec

TVD +N/-S

Ð

Survey Point Information:
DogLeg Severity Unit: 0/100.00ft

26.4L 109.1L 15.9R 0.0R 0.52 1.35 0.26 (USft) (°) (USft) (USft) (USft) (USft) (USft) (USft) (USft) (260.00 28.49 77.14 2494.06 202.61 785.98 811.19 2756.00 28.17 75.99 260.05 817.26 820.00 81.17 75.99 260.02 380.70 1191.01 1830.96 9260.00 1.62 143.67 8840.20 379.56 1791.84 1831.53 +E/-W (USft) 785.98 820.98

Mag Declination: 10.86° Grid Convergence: 1.01° True = Mag + 10.86° Bearing:

Casing Point Information: (USft) 2557.00 2385.79 MD (USft) 8 5/8 in

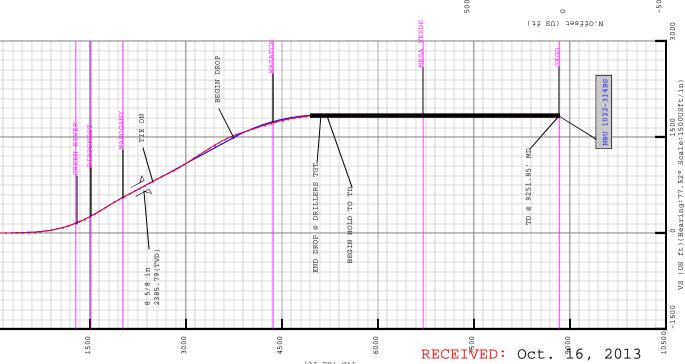
PBHL 8834.00 39.975963 -109.417757 25. CYL 6899.00 39.975963 -109.417757 INTERCEPT 4964.00 39.976007 -109.417787 DRILLERS TGT 5122.66 39.976009 -109.417772 Target Set Information: TVD (USft) Name: 314BS

Grid = True - 1.01°

3952.00 1311.03 3714.00 1575.34 3223.00 2144.17 880.00 4772.65 -1461.00 7122.83 -3590.00 9251.85 TVD Elevation (USft) 'ormation Point Information: GREEN RIVER 1292.00
BIRDSNEST 1530.00
MAHOGANY 2021.00
MESA VERDE 6705.00
SEGO 8834.00 (USft)

€ **@** 1022-500 1000 E.Offset (US ft)(Scale:500USft/in) Ø **€** €) 500 0 (Jl SU) Jeallo.N

2000



TVD (US ft)



Anadarko Hetroleum Corporation

4118 Petroleum Corporation

5D Survey Report

# **ANADARKO**

Field Name: Well Name: Site Name: Survey:

NATURAL BUTTES\_ANADARKO\_NAD27 NBU 1022-3J PAD

NBU 1022-314BS

Definitive Survey



5D 7.5.4 : 18 July 2013, 20:40:04 UTC

Weatherford International Limited

RECEIVED: Oct. 16, 2013

1

5D Survey Report

# DEFINITIVE SURVEYS FOR THE NBU 1022-314BS

	04°	UWI: Comment: Closure Azimuth: 78.0	5 ft 00 US ft 5 ft	Elevation above: 5218.00 US Comment:  Type: Main well  Rig Height Drill Floor: 26.0 Relative to: 5244.00 US ft Closure Distance: 1831.6 US
( 1 m) (	.04°	Closure Azimuth : 78.0	5 ft.	Closure Distance: 1831.6 US
	04°	Closure Azimuth: 78.	s ft	Closure Distance: 1831.6 US
Closure Distance: 1831.6 US ft Closure Azimuth: 78.04°		Comment :	oo US ft	Rig Height <i>Drill Floor</i> : 26.0 Relative to: 5244.00 US ft
.oo US ft IS ft		UWI:		Type: Main well
.00 US ft JS ft				Comment :
well <b>Drill Floor</b> : 26.00 US ft : 5244.00 US ft tance: 1831.6 US ft			J. T. C.	Elevation above: 5218.00 US
### Section	וואוריים י ביסייאליו		d Elevation	Slot TVD Reference: Ground
<b>g</b> :2081911.85 US ft	naitudo109 424173		Easting:2081911.85 US fd Elevation	+E / -W : -0.28 US ft Slot TVD Reference: Ground
ng:14520784.96 US ft g:2081911.85 US ft Comment: Comment:	titude: 39.974843		Northing :14520784.96 U Easting :2081911.85 US f d Elevation	+N / -S: -10.20 US ft +E / -W: -0.28 US ft Slot TVD Reference: Ground
Position (Offsets relative to Sit ag:14520784.96 US ft g:2081911.85 US ft Comment:	Centre) titude: 39.974843	ffsets relative to Sil	ng :145207/	+N / -S:-10.20 US ft +E / -W:-0.28 US ft Slot TVD Reference: Ground
Position (Offsets relative to Sit ng:14520784.96 US ft g:2081911.85 US ft Comment:	Centre) titude: 39.974843	ffsets relative to Si	<b>ng :</b> 145207/ <b>g :</b> 2081911.	Comment: +N / -S: -10.20 US ft +E / -W: -0.28 US ft Slot TVD Reference: Ground
bove: 5218.00 US ft  Position (Offsets relative to Sit  0.20 US ft	Centre) titude: 39.974843	ffsets relative to Si	ng :145207. g :2081911.	Elevation above:5218.00 US Comment: +N / -S: -10.20 US ft +E / -W: -0.28 US ft Slot TVD Reference: Ground
Position         Easting: 2081911.95         US ft           bove: 5218.00 US ft         Position (Offsets relative to Sit           .0.20 US ft         Northing: 14520784.96         US ft           5.28 US ft         Easting: 2081911.85         US ft           bove: 5218.00 US ft         UWI:           c: 5244.00 US ft         Comment:           s: 5244.00 US ft         Closure Azimuth:	ngitude: -109.424172  Centre)  titude: 39.974843	ffsets relative to Sir	g:20819111 ng:1452077 g:2081911.	Fosition  Elevation above:5218.00 US  Comment:  +N / -S: -10.20 US ft  +E / -W: -0.28 US ft  Slot TVD Reference: Ground
Position         Northing: 14520795.16 US ft           bove: 5218.00 US ft         Position (Offsets relative to Sit           0.20 US ft         Northing: 14520784.96 US ft           5.28 US ft         Easting: 2081911.85 US ft           eference: Ground Elevation         Lowe: 5218.00 US ft           well         UWI:           c: 5244.00 US ft         Comment:           c: 5244.00 US ft         Chosure Azimuth:	titude: 39.974871  ngitude: -109.424172  Centre)  titude: 39.974843	sets relative to Sil	ng:145207 g:2081911 ng:145207	Position  Elevation above:5218.00 US  Comment:  +N / -S: -10.20 US ft  +E / -W: -0.28 US ft  Slot TVD Reference: Ground

Target Set

Name: 314BS Number of Targets: 4

Comment:

TargetName:			Position (Relative to centre)	
PBHL	+N / -S:407.98US ft +E / -W:1797.89 US ft	Sft 9 USft	Northing: 14521224.65 US ft Easting: 2083702.25US ft	Latitude: 39°58'33.466800" Longitude: -109°25'3.925200"
<b>Shape:</b> Cuboid	TVD (Drill Floor): 8834.00 US ft	: 8834.00 US ft		
	Orientation Dimensions	Azimuth: 0.00° Length: 1.00 US ft	Inclination: 0.00° Breadth: 1.00 US ft	Height: 1.00 US ft

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5D Survey Report

TargetName:			Position (Relative to centre)	
INTERCEPT Shape:	+N / -S:423.83US ft +E / -W :1789.37 US ft	US ft .37 US ft	Northing: 14521240.35 US ft Easting: 2083693.45US ft	Latitude : 39°58'33.623448" Longitude : -109°25'4.034611"
Cuboid	TVD (Drill Floor	TVD(Drill Floor): 4964.00 US 作		
	Orientation Dimensions	<b>Azimuth</b> : 0.00° <b>Length :</b> 20.00 US ft	Inclination: 0.00° Breadth: 20.00 US ft	<b>Height :</b> 20.00 US ft
Target Name:	+N / -S:407.98US ft	IS ft	Position (Relative to centre) Northing: 14521224.65US ft	Latitude: 39°58'33.466800"
25' CYL	+E / -W: 1797.89US ft	ous ft	Easting: 2083702.25 US ft	Longitude : -109°25'3.925200"
Snape: Cylinder	TVD (Drill Floor) : 6899.00 US ft	) : 6899.00 US ft		
	Orientation	Azimuth: 1.01°	Inclination: 0.00°	
	Dimensions	<b>Radius:</b> 25.00 US ft	Length :3870.00 US ft	
Target Name:	+N / -S: 424.78US ft	JS ft	Position (Relative to centre) Northing: 14521241.37USft	Latitude: 39°58'33.632836"
DRILLERS TGT	+E / -W: 1793.67US ft	7US ft	Easting: 2083697.73 US ft	Longitude:-109°25'3.979367"
<b>Shape:</b> Cylinder	<b>TVD (Drill Floor)</b> : 5122.66 US ft	) : 5122.66 US ft		
	Orientation Dimensions	<b>Azimuth</b> : 1.01° <b>Radius:</b> 15.00 US ft	Inclination: 0.00° Length:1.00 USft	

Survey Name :Definitive Survey	vey			
Date: 13/Jun/2013	Survey Tool :	Comment:		Company:
Magnetic Model				
Model Name: BGGM	<b>Date:</b> 13/Jun/2013	Field Strength: 52095.6 nT	Declination: 10.86°	<b>Dip:</b> 65.80°
Survey Tool Ranges				
Name	Start MD (USft)		End MD (us ft)	Source Survey
MWE	.0	0.00	2680.00	SURFACE SURVEYS
MWE	268	2680.00	9260.00	WFT MWD SURVEYS

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5D 7.5.4 : 18 July 2013, 20:40:04 UTC

5D 7.5.4 : 18 July 2013, 20:40:04 UTC

5D Survey Report

Well path created using minimum curvature

(US/R)	Cu	A7	CIAL	Az IVI) N Offset	F Officet	atitude	- I continue	υ IC	T Face	C	۵/	High to Plan	Right to Plan	Commont
	(6)	10	(US ft)	(US ft)	(US ft)	(0)	(0)	(°/100 US ft)	(6)	(US ft)	(US ft)	(US ft)	(US ft)	
0.00	0.00	0.00	0.00	0.00	00.0	39.974843	-109.424173	0.00	0.00	0.00	-2.48	0.00	0.00	2
22.00	0.00	0.00	22.00	0.00	0.00	39.974843	-109.424173	0.00	0.00	22.00	-2.48	0.00	0.00	
200.00	0.61	78.85	200.00	0.18	0.93	39.974844	-109.4241/0	0.34	78.85	178.00	-1.53	-0.00	0.00	
282.00	0.91	51.24	281.99	89.0	1.87	39.974845	-109.424166	0.57	294.97	82.00	-0.51	-0.00	0.00	
367.00	1.06	96'89	36.998	1.44	3.10	39.974847	-109.424162	0.31	62.02	85.00	98.0	-0.00	0.00	
464.00	2.10	55.66	463.94	2.84	5.37	39.974851	-109.424154	1.10	343.42	97.00	3.38	-0.00	00.0	
554.00	3.36	54.38	553.84	5.31	8.88	39.974858	-109.424141	1.40	356.59	90.00	7.34	-0.00	0.00	
644.00	4.04	54.12	643.65	8.70	13.59	39.974867	-109.424125	0.76	358.46	90.00	12.67	-0.00	0.00	
734.00	5.72	53.59	733.32	13.22	19.77	39.974879	-109.424102	1.87	358.20	90.00	19.68	-0.00	0.00	
824.00	8.00	70.64	822.68	17.96	29.29	39.974892	-109.424068	3.37	50.45	90.00	30.00	-0.00	0.00	
914.00	10.99	74.95	911.43	22.26	43.49	39.974904	-109.424018	3.41	15.51	90.00	44.79	-0.00	0.00	
1004.00	13.19	79.16	999.43	26.42	61.86	39.974916	-109.423952	2.63	23.91	90.00	63.63	-0.00	0.00	
1094.00	15.39	78.02	1086.64	30.83	83.63	39.974928	-109.423875	2.46	352.16	90.00	85.84	-0.00	0.00	
1184.00	18.20	74.33	1172.80	37.11	108.85	39.974945	-109.423785	3.34	337.45	90.00	111.82	-0.00	0.00	
1274.00	21.02	75.46	1257.57	44.96	138.01	39.974966	-109.423680	3.16	8.19	90.00	141.99	-0.00	0.00	
1364.00	23.87	76.54	1340.75	53.25	171.35	39.974989	-109.423562	3.20	8.73	90.00	176.33	-0.00	0.00	
1454.00	26.12	76.88	1422.31	61.99	208.36	39.975013	-109,423429	2.51	3.81	90.00	214.36	-0.00	0.00	
1544.00	28.12	77.00	1502.41	71.26	248.33	39.975039	-109.423287	2.22	1.62	90.00	255.38	-0.00	0.00	
1634.00	29.38	76.26	1581.32	81.27	290.44	39.975066	-109.423137	1.45	343.90	90.00	298.66	-0.00	0.00	
1724.00	29.99	76.26	1659.50	91.86	333.73	39.975095	-109.422982	89.0	0.00	00.06	343.22	-0.00	0.00	
1814.00	31.39	76.88	1736.90	102.52	378.41	39.975124	-109.422823	1.59	13.00	00.06	389.15	-0.00	0.00	
1904.00	32.07	76.51	1813.44	113.42	424.47	39.975154	-109.422658	0.79	343.87	00.06	436.48	-0.00	0.00	
1994.00	30.43	75.82	1890.38	124.58	469.81	39.975185	-109.422496	1.87	192.02	90.00	483.15	-0.00	0.00	
2084.00	29.63	74.42	1968.30	136.14	513.34	39.975217	-109.422341	1.18	220.61	90.00	528.15	-0.00	0.00	
2174.00	27.34	75.59	2047.40	147.26	554.79	39.975247	-109.422193	2.62	166.82	90.00	571.03	-0.00	0.00	
2264.00	27.44	77.32	2127.32	156.95	595.04	39.975274	-109.422050	0.89	83.61	90.00	612.42	-0.00	0.00	
2354.00	27.80	76.76	2207.06	166.31	635.70	39.975300	-109.421904	0.49	323.95	90.00	654.14	-0.00	0.00	
2444.00	28.49	75.56	2286.42	176.47	676.92	39.975327	-109.421757	0.99	320.11	90.00	85'969	-0.00	0.00	
2534.00	28.40	76.09	2365.55	186.97	718.48	39.975356	-109.421609	0.30	109.85	90.00	739.43	-0.00	0.00	
2624.00	28.23	77.41	2444.78	196.75	760.03	39.975383	-109.421461	0.72	105.77	90.00	782.11	-0.00	0.00	
2680.00	28.49	77.14	2494.06	202.61	785.98	39.975399	-109.421368	0.52	333.62	26.00	808.71	-0.00	0.00	
2756.00	28.17	75.09	2560.96	211.26	820.98	39.975423	-109.421243	1.35	250.89	76.00	844.76	0.20	0.65	
2851.00	26.75	76.98	2645.26	221.85	863.49	39.975452	-109.421092	1.75	149.30	95.00	888.55	1.94	1.57	
2946.00	27.15	79.10	2729.94	230.77	905.60	39.975477	-109.420941	1.10	68.34	95.00	931.59	4.54	1.11	
3040.00	26.78	81.01	2813.73	238.13	947.58	39.975497	-109.420791	1.00	113.98	94.00	974.17	7.01	86.0-	
3134.00	29.71	82.50	2896.53	244.48	991.60	39.975514	-109.420634	3.21	14.19	94.00	1018.52	7.26	-4.41	
3229.00	32.39	82.32	2977.91	250.96	1040.17	39.975532	-109.420461	2.82	357.94	95.00	1067.34	2.90	-8.19	
3323.00	33.60	79.37	3056.75	259.12	1090.69	39.975554	-109.420281	2.14	305.74	94.00	1118.43	-4.09	-10.73	
3418.00	34.04	26.69	3135.68	270.09	1142.40	39.975585	-109,420096	1.64	285.32	95.00	1171.29	-12 43	-11 40	

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5D Survey Report

	Comment																																									
	Right to Plan (US ft)	-10.62	-9.36	-7.18	-5.92	-4.38	-2.26	1.20	5.62	8.08	10.04	11.31	9.29	7.78	4.14	0.87	-1.86	-3.71	-5.54	-5.56	-7.45	-9.13	-10.48	-10.58	-10.13	-9.48	-8.52	-7.92	13.98	11.40	9.45	6.81	8.01	11.14	12.45	7.11	6.95	92'9	4.49	-15.23	-20.59	-20.59
	High to Plan (US ft)	-19.28	-24.79	-31.43	-36.40	-39.06	-37.43	-30.04	-19.59	-8.91	1.13	10.18	15.47	17.51	18.64	18.72	18.23	16.47	14.33	12.31	9.26	6.14	2.58	-2.05	-4.17	-6.31	-8.67	-10.94	-2.45	-8.25	-10.80	-13.49	12.64	8.26	-4.64	9.39	5.28	-3.95	-12.65	-9,48	-0.84	95.0
	VS (US ft)	1222.07	1272.28	1322.69	1372.26	1419.39	1463.20	1501.19	1535.92	1568.49	1598.17	1626.50	1655.73	1684.34	1711.02	1735.15	1757.03	1777.03	1794.50	1809.15	1820.70	1829.15	1834.13	1836.50	1838.11	1839.60	1841.02	1842.68	1843.30	1842.68	1841.99	1841.28	1840.67	1840.11	1839.63	1838.79	1837.08	1833.14	1829.34	1825.52	1820.58	1820.44
	CL (US ft.)	94.00	95.00	94.00	95.00	94.00	95.00	94.00	94.00	95.00	95.00	94.00	94.00	95.00	94.00	94.00	95.00	94.00	95.00	94.00	94.00	95.00	94.00	95.00	94.00	95.00	94.00	95.00	94.00	95.00	94.00	95.00	94.00	94.00	95.00	94.00	95.00	188.00	189.00	189.00	378.00	189.00
	T.Face (°)	186.45	329.14	99.44	188.04	208.43	188.65	188.37	154.76	162.27	200.84	64.87	70.65	192.37	103.69	177.67	192.96	186.77	177.67	198.72	163.26	169.15	173.39	162.63	91.12	155.47	29.83	8.29	168.67	299.68	325.55	319.42	158.61	213.54	214.62	86.62	359.35	185.36	215.23	217.42	264.55	289.89
	DLS (°/100 US ft)	2.86	1.38	0.61	1.99	1.01	4.65	3.03	1.85	2.00	2.15	1.30	1.73	1.89	1.32	3.07	0.27	2.01	1.64	1.99	2.34	1.89	2.49	0.93	0.05	0.15	0.23	0.35	1.88	0.26	0.24	0.32	1.54	0.27	0.38	1.76	1.12	0.22	0.31	1.07	0.37	0.41
	Longitude (°)	-109.419920	-109.419746	-109.419572	-109.419401	-109.419238	-109.419088	-109.418958	-109.418839	-109.418727	-109.418625	-109.418527	-109.418424	-109.418323	-109.418229	-109.418142	-109.418064	-109.417992	-109.417930	-109.417878	-109.417837	-109.417806	-109.417788	-109.417779	-109.417772	-109.417766	-109.417760	-109.417753	-109.417750	-109.417752	-109.417754	-109.417755	-109.417757	-109.417760	-109.417761	-109.417765	-109.417774	-109.417793	-109.417811	-109.417825	-109.417837	-109.417832
	_atitude (°)	39.975617	39.975652	39.975687	39.975720	39.975754	39.975788	39.975819	39.975848	39.975871	39.975893	39.975913	39.975928	39.975940	39.975950	39.975956	39.975961	39.975966	39.975972	39.975977	39.975981	39.975982	39.975981	39.975980	39.975978	39.975976	39.975973	39.975970	39.975967	39.975966	39.975963	39.975959	39.975958	39.975960	39.975960	39.975963	39.975970	39.975988	39.976001	39.976002	39.975979	39.975961
	E.Offset (US ft)	1191.76	1240.40	1289.21	1337.27	1382.83	1424.97	1461.34	1494.63	1526.10	1554.74	1582.14	1610.88	1639.20	1665.75	1689.97	1711.96	1732.01	1749.48	1764.05	1775.54	1784.11	1789.27	1791.83	1793.64	1795.34	1796.99	1798.98	1799.80	1799.29	1798.79	1798.37	1797.84	1797.15	1796.64	1795.57	1793.20	1787.76	1782.80	1778.76	1775.59	1776.85
l Floor )	N.Offset (US ft)	282.02	294.62	307.35	319.63	331.88	344.14	355.66	365.93	374.49	382.42	389.72	395.14	399.60	403.11	405.30	407.23	409.21	411.08	413.07	414.60	414.94	414.69	414.10	413.37	412.59	411.68	410.43	409.55	409.00	408.06	406.68	406.24	406.77	406.84	407.80	410.61	416.93	421.74	422.35	413.79	407.43
centre, TVD relative to Drill Floor)	TVD (US ft)	3214.77	3295.39	3374.71	3455.73	3537.03	3621.26	3707.16	3794.46	3883.68	3973.91	4063.53	4152.86	4243.43	4333.53	4424.32	4516.72	4608.53	4701.89	4794.73	4888.00	4982.61	5076.46	5171.42	5265.40	5360.39	5454.37	5549.34	5643.33	5738.32	5832.32	5927.31	6021.30	6115.30	6210.30	6304.28	6399.21	6587.02	6775.90	6964.84	7342.72	7531.61
centre, TVD r	A7 (°)	76.11	74.86	75.92	75.40	74.49	72.94	71.86	73.93	75.69	73.25	76.85	81.70	96.08	84.61	85.11	84.86	83.74	84.11	79.86	85.86	90.36	98.11	110.86	113.11	116.36	121.24	122.98	236.86	213.43	203.49	192.11	315.36	296.61	241.86	319.99	319.74	318.77	308.36	230.78	179.49	159.99
(Relative to	Inc (°)	31.37	32.50	32.41	30.54	29.71	25.35	22.54	20.98	19.18	17.29	17.84	18.44	16.69	16.44	13.56	13.31	11.44	9.88	8.13	90.9	4.31	2.00	1.19	1.19	1.06	1.25	1.58	0.38	0.55	0.75	1.00	0.63	0.44	0.25	1.69	2.75	2.33	1.88	1.26	1.80	2.19
Survey Points (Relative to	MD (US ft)	3512.00	3607.00	3701.00	3796.00	3890.00	3985.00	4079.00	4173.00	4268.00	4363.00	4457.00	4551.00	4646.00	4740.00	4834.00	4929.00	5023.00	5118.00	5212.00	5306.00	5401.00	5495.00	5590.00	5684.00	5779.00	5873.00	5968.00	6062.00	6157.00	6251.00	6346.00	6440.00	6534.00	6629.00	6723.00	6818.00	7006.00	7195.00	7384.00	7762.00	7951.00

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urvey Points (Relative to		centre, TVD re	centre, TVD relative to Drill Floor )	ll Floor )										
MD (US ft)	Inc (°)	A7 (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	atitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (USft)	Right to Plan (US ft)	Comment
8045.00	1.38	137.74	7625.56	404.90	1778.23	39.975955	-109.417827	1.12	209.79	94.00	1821.23	5.91	-19.31	
8140.00	1.56	144.49	7720.53	403.00	1779.75	39.975949	-109.417822	0.26	47.30	95.00	1822.31	1.58	-19.58	
8328.00	1.63	150.24	7908.46	398.60	1782.56	39.975937	-109.417812	60.0	69.27	188.00	1824.10	-4.75	-19.14	
8517.00	1.25	152.36	8097.40	394.44	1784.85	39.975926	-109.417804	0.20	173.08	189.00	1825.44	-9.33	-18.64	
8706.00	1.69	169.61	8286.34	389.87	1786.31	39.975913	-109.417798	0.33	54.00	189.00	1825.88	-18.30	-14.48	
00.0088	1.00	178.61	8380.31	387.69	1786.58	39.975907	-109.417797	0.77	167.44	94.00	1825.67	-22.10	-11.32	
00.6868	1.06	138.11	8569.28	384.74	1787.79	39.975899	-109.417793	0.38	254.27	189.00	1826.21	-11.67	-23.62	
9210.00	1.62	143.67	8790.22	380.70	1791.01	39.975888	-109.417782	0.26	15.86	221.00	1828.48	-18.09	-21.79	LAST WFT MWD SVY
9260.00	1.62	143.67	8840.20	379.56	1791.84	39.975885	-109.417779	0.00	0.00	20.00	1829.05	-19.13	-21.71	PROJECTION TO TD
ormation Points (Relative to centre, TVD relative to Drill Floor)	(Relative to	centre, TV	'D relative to	Drill Floor)										
		Name					MD (H S H)					TVD (# SII)		
	Ċ	GREEN RIVER					1311 03					1292 00		
	, ш	BIRDSNEST					1575.34					1530.00		
	~	MAHOGANY					2144.17					2021.00		
		WASATCH					4771.69					4364.00		
	Σ	MESA VERDE					7124.06					6705.00		
		SEGO					9253.80					8834.00		

Sundry Number: 57723 API Well Number: 43047529080000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		1	5.LEASE UTU-0	<b>DESIGNATION AND SERIAL NUMBER:</b> 1191A
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.				r CA AGREEMENT NAME: AL BUTTES
1. TYPE OF WELL Gas Well					NAME and NUMBER: 022-314BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NI</b> 43047	JMBER: 529080000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		<b>NE NUMBER:</b> 9 720 929-6		and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1496 FSL 2294 FEL				COUNTY	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Merio	dian: :	s	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR C	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE	A	ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT		NEW CONSTRUCTION
10/16/2014	OPERATOR CHANGE	□ Р	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	□ R	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□s	SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	TUBING REPAIR	□ v	/ENT OR FLARE		WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	□s	SI TA STATUS EXTENSION		APD EXTENSION
,		1	NTHER.	ОТШ	ER: WELLBORE CLEANOUT
	WILDCAT WELL DETERMINATION		JIHEK		,
KERR-MCGEE ( FOLLOWING W	COMPLETED OPERATIONS. Clearly show OIL & GAS ONSHORE, L.P.HA ORKOVER-WELLBORE CLEA E ATTACHED OPERATIONS S	S CC NOL	OMPLETED THE JT ON THE NBU	o FOI	Accepted by the Utah Division of il, Gas and Mining R RECORD ONLY November 12, 2014
NAME (PLEASE PRINT)	PHONE NUME	BER	TITLE		
Doreen Green	435 781-9758		Regulatory Analyst II		
SIGNATURE N/A			<b>DATE</b> 11/11/2014		

Sundry Number: 57723 API Well Number: 43047529080000

					U	S ROC	KIES RI	EGION		
Operation Summary Report										
Well: NBU 1022-	-3I4BS B	LUE				Spud Date: 6/15/2013				
Project: UTAH-UINTAH Site: NE					NBU 1022-03J PAD				Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3	
Event: WELL WORK EXPENSE Start Da					ate: 10/10/2014				End Date: 10/13/2014	
Active Datum: R Level)	KB @5,2	44.00usft (a	bove Mean Se	ea	UWI: N\	N/SE/0/1	0/S/22/E/3	3/0/0/26/PM/S/14	96/E/0/2294/0/0	
Date	St	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
10/10/2014	7:00	- 7:15	0.25	MAINT	48		Р		JSA-SAFETY MEETING	
	7:15	- 10:30	3.25	MAINT	30	Α	Р		ROAD RIG FROM 570-17E TO	D LOC, MIRU, UNIT,
	10:30	- 13:30	3.00	MAINT	30	F	Р		100# ON WELL, BLOW DN TO WTR TO CONTROL WELL, N	,
	13:30	- 15:00	1.50	MAINT	31	I	Р		RIH W/ 2 3/8" L80 TBG, TAG I LAY DN 14 JTS, SHUT WELL SDFWE	•
10/13/2014	7:00	- 7:15	0.25	MAINT	48		Р		HSM, JSA	
	7:15	- 12:30	5.25	MAINT	31	I	Р		110# FCP, CONTROL WELL V MIRU SCAN TECH, TOOH & S SHOWED 287 YELLOW JTS & SCALE, RD SCAN TECH	SCAN 2-3/8" TBG, SCAN
	12:30	- 16:00	3.50	MAINT	31	I	Р		M/U NEW XN NIPPLE, TIH W. ON HANGER W/ 287 JTS, BR BROACH TO XN	
	16:00	- 17:30	1.50	MAINT	30	С	Р		ND BOP'S, NU WH, SWI, RD	
									KB HANGER 137 JTS 2-3/8" L-80 TBG 6' PUP JNT 2-3/8" L-80 150 JTS 2-3/8" J-55 TBG XN NIPPLE EOT @	26' .83' 4347.62' 6.134' 4375.90' 1.05' 8757.53'
10/16/2014	7:00	- 17:00	10.00	PROD	42	В	Р		SWABBING	

11/11/2014 7:38:40AM 1